



INSIDE DOPE

by GEORGE F. TAUBENECK

Story of the Week
Free Enterprise at Work
Wisdom from a Wise Man
What Is 'Real Income,' Anyway?

Story of the Week

They're laughing about this in and around London now, we are informed by a subscriber over there:

"If Attlee, Dalton, Cripps, and Shinwell were in a small boat in stormy mid-ocean, and the boat sprang a leak, who would be saved?"

Answer: "Britain!"

Free Enterprise at Work

With its radio, phonograph, and transformer production accounting for 35.53% of its present business, and its Universal Cooler Division at Marion, Ohio bringing in 22.62% of the total, International Detrola Corp. of Detroit, which is headed by C. Russell Feldmann, has skyrocketed from an enterprise which sold slightly more than \$500,000 worth of goods in 1938 to an organization which will register sales of more than \$40,000,000 this year.

The saga of Mr. Feldmann's enterprise is a typically American romance. Variety of the items and materials produced by this fast-developing corporation, which now has subsidiaries stretching from California to Montreal, is nearly as impressive as its rapid growth.

Besides radios, phonographs, transformers, and refrigeration equipment, the 8,000 employees of the various units of this vast business network turn out complete power plants for the mighty "Constellation" planes, coal, rolled steel, lumber, furniture, machinery, and radio cabinets.

As in the case of most other successful and expanding corporations, its leader, Mr. Feldmann, is a super-energetic fellow who has unlimited faith in the free enterprise system.

Here's an interesting personal note on this interesting tycoon: he popularized the game of mah jongg—an oriental game played with 144 tiles, with a vaguely complicated similarity to dominoes—in the United States. For a time, mah jongg enjoyed an unprecedented "rage" here.

Besides serving as chairman of the board and president of the Detrola Corp., Mr. Feldmann is also president of the Henney Motor Co., Inc., of Freeport, Ill., an ambulance and funeral car manufacturing concern, which he recently purchased.

Although we have met him only twice, we must say that he's quite a character to encounter in this increasingly rigid and conformist age.

Wisdom from a Wise Man

The cancer of our democratic American society today is the breakdown of individual responsibility.

That is the opinion of Felix Morley, president of Haverford College, and a former editor of the *Washington Post*. (He is also a Rhodes Scholar, and a brother of Christopher Morley, the brilliant novelist.)

"To meet this condition," Mr. Morley declares, "we turn to collectivism and thus tragically stimulate the very disease we should be intelligently fighting."

Mr. Morley deplors the inability of the modern American to distinguish clearly the difference between the State and Society. "It is the role of Society to develop the human personality," he says. "It is the role of the State, in the European form which President Roosevelt set out to imitate, not to leave the individual to his own devices, but to treat him as a child or servant."

"The development of the State into a welfare pattern inevitably involves progressive subjection to bureaucratic

(Concluded on Page 6, Column 3)

268,320 Units
Sold In April
By Nema Mfrs.

NEW YORK CITY—Sales of household electric refrigerators in April by 11 manufacturers who report their sales to the Household Refrigeration Section of Nema totaled 268,320 units.

Sales in March totaled 246,029 units, and sales for the first four months of 1947 were 904,475 units.

Sales were reported by the following companies, probably representing more than 95% of the industry's volume: Admiral Corp., Crosley, Coolerator, Hotpoint, Frigidaire, General Electric, Gibson, Nash-Kelvinator, Norge, Seeger, and Westinghouse.

Following is a summary of shipments for April and the first four months:

	April	First Four Months
Domestic	250,623	847,600
Canadian	2,049	5,479
Other Foreign	15,648	51,396
Total	268,320	904,475

210,248 Freezers
Shipped In 1946

WASHINGTON, D. C.—Factory shipments of home and farm freezers for 1946 totaled 210,248, valued at \$42,194,304, according to the Bureau of the Census. (See tables on page 8.)

Fourth quarter shipments were 97,934, high point for the year, and represented a gain of 62% in value over the third quarter figures. Value of fourth quarter shipments was \$18,593,912, while in the preceding quarter the figure was \$11,508,606.

A steady gain in both shipments and value throughout the year was noted by the Census Bureau, which claims virtually complete coverage

(Concluded on Page 28, Column 5)

Norge Produces First
Video Show In Detroit

DETROIT — Norge Division of Borg-Warner Corp. entered commercial television advertising here last week with the first "live show" program shown in the Detroit area.

A complete half-hour show, produced in the studios of WWJ-TV, the first television station to operate in this area, was a highlight of the evening broadcast for Detroit's first day of television.

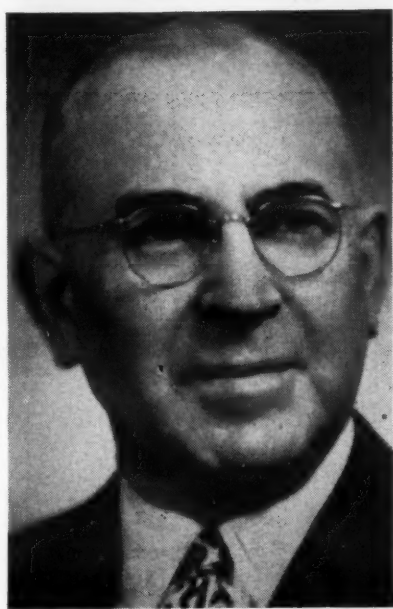
Producer W. H. Case, vice president of Campbell-Ewald Co., advertising agency for Norge, employed entertainers from Detroit's various night spots for the program. Commercials featured a Norge range and refrigerator demonstrated by Shirley Radmer, a local model.

Jack & Heintz Production
Hits 4,003 In 3rd Month

CLEVELAND—Production of open-type refrigeration condensing units by Jack & Heintz Precision Industries, Inc. during the month of May totaled 4,003 units, company officials report.

The Jahco officials are putting in a claim for some sort of a record for this figure, on the basis that no other company achieved such a volume by the third month after it had got into production.

Production schedules call for output to reach 5,000 units in June, with officials hopeful that this figure may be surpassed, in view of the fact that a goal of only 3,500 units had been set for May.

New ACRMA Head
Sees Output Boost

F. S. McNEAL

HOT SPRINGS, Va.—Greatly increased production for the refrigerating and air conditioning industry was predicted by F. S. McNeal, newly elected president of the Air Conditioning and Refrigerating Machinery Association at the association's recent convention in Hot Springs, Va.

Mr. McNeal is a vice president of International Detrola Corp. and general manager of the Universal Cooler Division, International Detrola Corp., Marion, Ohio. Other new officers elected are: George F. Jones, Jr.,

(Concluded on Page 28, Column 3)

Permanent Reg. W
Or None Hinted

WASHINGTON, D. C.—Permanent controls over consumer credit through Regulation W will probably be asked when Marriner Eccles, chairman of the Federal Reserve Board, appears before House Banking and Currency Committee Tuesday, June 10, according to indications here.

Unless legislators act, the Reserve Board plans to drop these credit controls following the adjournment of Congress, some board officials revealed last week.

(Concluded on Page 4, Column 5)

PRICES

Harder Freezers Cut

NILES, Mich.—Retail price reductions of \$18 on its 12-cu. ft. Harder-Freezer home freezer (Model HC12B) and \$30 on its 18-cu. ft. upright freezer (Model HU18F) are announced by Tyler Fixture Corp. here.

"This action has been taken by the company due to recent increases in production, and in line with the trend of reducing prices nationally," said J. B. Hennion, sales promotion manager.

The freezers are built by Tyler's subsidiary, Harder Refrigerator Corp., Cobleskill, N. Y.

Thor Machines Up

CHICAGO—Price increases of \$30 on its Automagic washer and nearly \$20 on the Gladiron ironer have been announced by John R. Hurley, president of Thor Corp. These will apply nationally.

Rising costs of raw materials were cited as the cause of these price boosts.

The new washer price will also include normal installation charges, said Mr. Hurley, who indicated that dealers in various sections of the country had been asking varying amounts for installation.

'Unfair' Excise Taxes Rapped
By Lawson at Congress HearingIndustry Warned of
Bogus Steel OffersUrges Repeal or Chagne
Of 'Discriminatory' Taxes
In Appliance Field

WASHINGTON, D. C.—Out of investigations into an alleged million-dollar racket, which a Senate subcommittee ran across in its search for steel, came a warning to manufacturers in the market for the metal.

This was the warning given by Raymond Dickey, chief counsel to the subcommittee. Any businessmen who are asked to sign contracts for the purchase of steel on the basis of letters purportedly from Bethlehem Steel Co. should "check immediately with the company or they are likely to be left holding the bag."

Mr. Dickey's advice was based on evidence that a ring is using letters forged on stationery stolen from Bethlehem as a "come-on" to get potential steel buyers to sign "irrevocable and uncancellable" contracts. The counsel said the contracts call for delivery of steel at \$110 a ton.

The next move of the operators, he explained, is to try to collect a deposit of \$1 a ton, which would be forfeited if the steel is not accepted. Investigations indicate that the ring intends to offer to fulfill the contracts when the price of steel has dropped well below the contract price and then collect the forfeit, he revealed.

Mr. Dickey claimed the ring has accepted orders for about 1,000,000 tons of steel and collected deposits of at least \$22,000. He said as much as \$1,000,000 might be collected on

(Concluded on Page 4, Column 4)

FTC Begins Survey of
Fair Trade Prices

WASHINGTON, D. C.—While retailers around the nation argue over the relative merits or demerits of fair trade laws now in effect in 45 states, the Federal Trade Commission has started work on a survey of manufacturers' prices being maintained under them, it was reported here.

The FTC has said the survey is intended to determine levels of consumer commodity prices in various industries as established or suggested by manufacturers.

Other sources, however, suggested that the poll might be used by government officials to secure evidence of possible collusion on the part of some manufacturers to keep prices up. This in turn, it was indicated, might lay the groundwork for anti-

(Concluded on Page 25, Column 2)

Insufficient Funds as a Deterrent to Immediate
Purchase of Electrical Appliances

APPENDIX D

From replies received to the question: "Are there any reasons you can think of why you might wait a while, even if there were plenty?" the following figures were obtained in the survey referred to in Appendix C.

Appliance	Per Cent Who Give Reasons for Waiting				
	Total Per Cent	Reasons Given			
		Not Enough Money	Waiting For Better Models	Family Member in Service	Might Not Buy At All
Mechanical Refrigerator	38	20	14	3	1
Washing Machine	29	14	11	2	2
Vacuum Cleaner	33	13	14	3	2
Home Radio	39	15	21	1	1
Electric Iron	21	10	9	1	1
Sewing Machine	43	26	10	3	3

This table shows that 20% of the potential buyers of the taxed refrigerator might not be able to buy immediately because of monetary considerations; whereas, less than 15% of the potential buyers of the untaxed vacuum cleaner and washing machine are deterred by monetary considerations. The importance of the increased cost of refrigerators to these marginal buyers, due to the excise tax, should be evident. We believe this is an unjust discrimination.

PRECISION · PERFORMANCE · PERMANENCE

Refrigeration products bearing the Larkin insignia may be depended upon to function flawlessly. Originator of the patented Cross Fin Coil, Larkin also installs the same exacting quality in Humi-Temp Forced Convection Units — Bare Tube and Zinc Fused Steel Plate Coils — Instantaneous Water Coolers — Air Conditioning Units — Evaporative Condensers — and other mechanical facilities for efficient commercial and industrial refrigeration.



LARKIN COILS

519 MEMORIAL DRIVE · S.E.
ATLANTA · GEORGIA

Excise Taxes --

(Concluded from Page 1)

against, other than business machines, commercial cars and trucks, he said, and that this placed an unfair burden upon such institutions.

The excise tax is also a burden which makes sales to low income purchasers more difficult, he declared. "It is recognized universally that every American family must have food cooking and food preservation equipment, and a supply of hot water

for cleanliness and health," he stated. "Public and privately financed projects for even the lowest income group families supply these facilities on an individual family basis. In most instances, electricity, gas, or oil is the most economical available fuel. Why should the tenants in such projects be assessed artificially high costs because of an excise tax on these essential appliances?"

Mr. Lawson also described the excise tax as a burden on business,

especially the small business man, who has to bear a large portion of the cost of collection by employing highly trained personnel to interpret complicated regulations, compile records, and make returns.

In support of his testimony, Mr. Lawson submitted various tables illustrating the demand for electrical appliances, especially among lower income groups, and calling attention to the restricting influence of excise taxes on purchases.

(Additional data presented by Mr. Lawson before the House Ways and Means Committee appears on page 4. Other important data on the appliance industry will be published in a future issue.)

Discriminatory Inconsistencies of the Present Application of Excise Taxes

APPENDIX A

Taxed Major Electrical Appliances

Mechanical Refrigerators (electric and gas)

Water Heaters (electric, gas, or oil heated)

Electric Air Heaters

Cooking Stoves (electric, gas, or oil)

Commercial Cooking Equipment (electric, gas, and oil heated)

Electrically Driven Portable Mixers, Choppers, etc., for Commercial Use

Untaxed Competitive Articles and Electrical Appliances

Electric Vacuum Cleaners

Carpet Sweepers

Washing Machines (electric or engine driven)

Electric Ironing Machines

Sewing Machines (electric or foot driven)

Home Freezers (electrically driven)

Ice Refrigerators

Hot Water Range Boilers

Furnaces and Heating Stoves (gas, oil, or other fuel fired)

Cooking Stoves (wood or coal fired)

Commercial Cooking Equipment (wood and coal burning)

Hand and Belt Driven Mixers, Choppers, and other non-Electric Restaurant and Food Service Equipment, and Electric non-portable Cake and Dough Mixing Machines

Discriminatory Inconsistencies of the Present Application of Excise Taxes

APPENDIX B

Taxed Small Appliances

Electric Flatirons

Electric Fans

Electric Heating Pads

Electric Blankets

Electric Mixers, Juicers, Whippers

Electric Roasters, Toasters

Electric Waffle Bakers, Griddles, Hot Plates

Electrically Heated Casseroles, Chafing Dishes, and Food Servers

Electric Coffee Makers

Accessories such as "Hostess sets," trays, racks, stands, condiment sets—when sold with taxed roasters, toasters, ranges, etc.

Not Taxed

Sadirons and Ironing Machines

Window Ventilators, Attic Fans

Hot Water Bottles

Blankets and Bedding

Hand and Belt Driven Coffee Grinders, Juicers, Mixers, and Whippers

Waffle Irons, Griddles, Skillets, and other Kitchen Ware

Non-Electric Table Service Appliances

Coffee and Teapots and Percolators

Hostess Sets, racks, trays, stands, condiment sets, etc., when sold separately

Electric Shavers, Razors

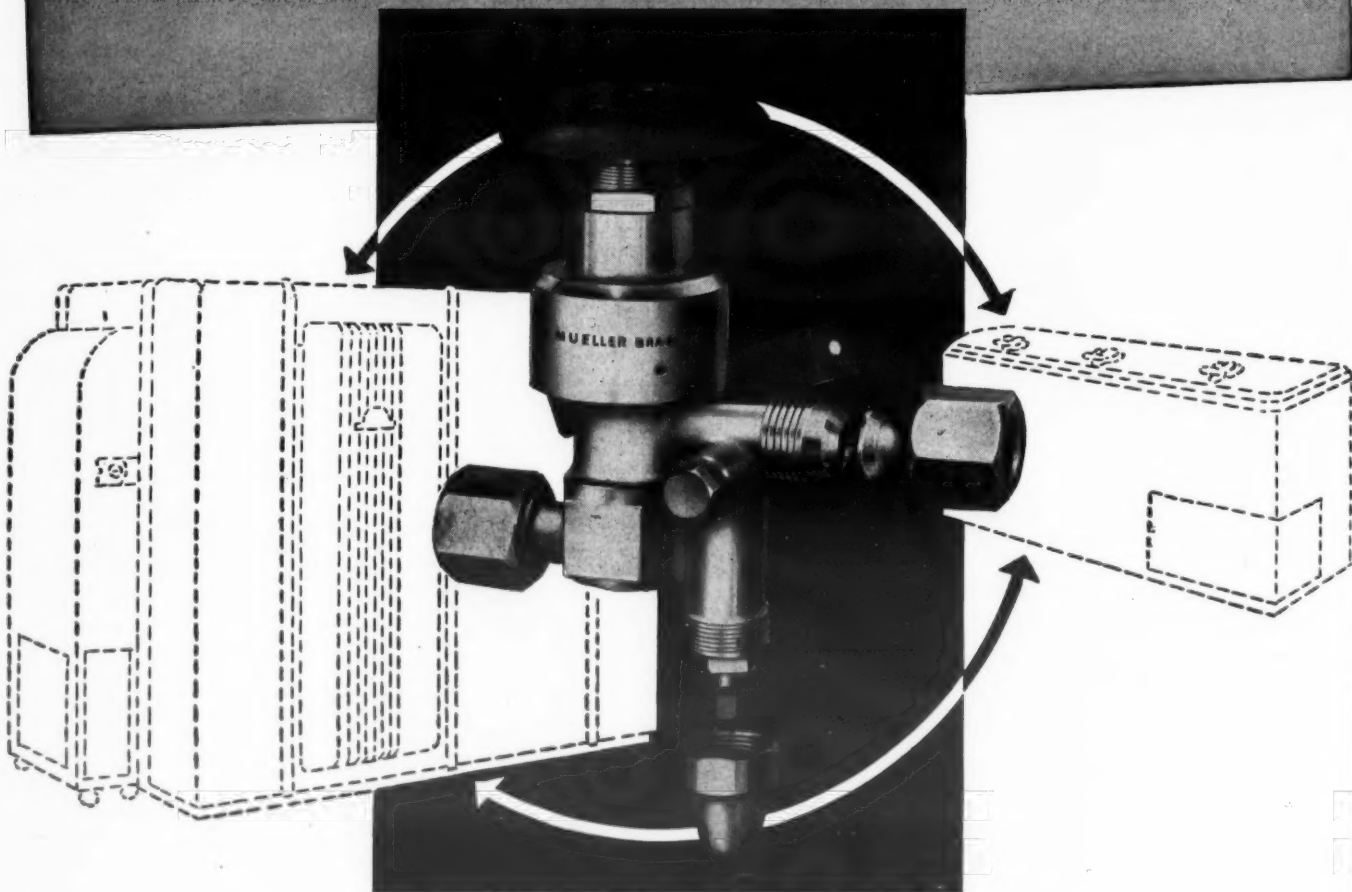
Electric Vibrators

Electric Hair Dryers

Electric Ice Cream Freezers

MUELLER BRASS CO.

Two-Temperature Control Valve



● The Mueller Brass Co. Two-Temperature Control Valve is used in a refrigerating system where one compressor cools more than one unit and where it is desirable to more accurately control temperatures in the various units. It closely maintains a pressure in the coil at a level above the operating pressure of the machine.

An exclusive feature of this valve is the provision for by-passing the automatic valve in case it is desired to pump all the refrigerant from the coil. By means of this by-pass arrangement, the automatic valve can, in effect, be cut out of the system and the coil opened directly to

the suction line. Provision is also made for the attachment of a pressure gauge while the line is under pressure.

There is no limit to the number of valves that can be installed on one system. When several boxes are to be maintained at different temperatures, the Two-Temperature Valves are installed on the higher temperature units.

An oval handle, which is independent of the automatic closing feature, provides manual closing and eliminates the use of a separate line valve.

Valves are furnished 1/2" and 5/8" flare.

MUELLER BRASS CO.

PORT HURON, MICHIGAN

Speed-Freeze

AN OUTSTANDING BEVERAGE COOLER . . .



8 FOOT BLOWER TYPE
SELF-CONTAINED ILLUSTRATED.

Good news for those who want the best in beverage coolers—the new, ideal "Speed-Freeze" plug-in type cooler with a 28½ case capacity.

Manufactured to the highest quality standards by specialists in the beverage cooler field for over a decade. Designed and engineered

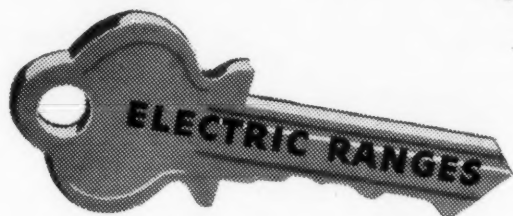
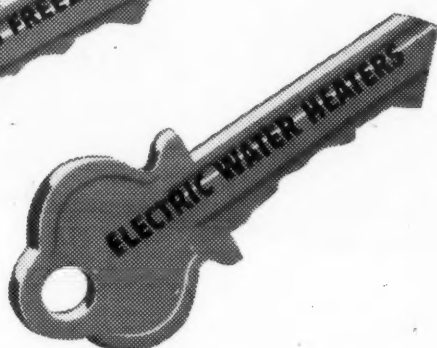
to insure maximum operating efficiency, the "Speed-Freeze" cooler insures years of outstanding service.

The "Speed-Freeze" line is RIGHT in quality, RIGHT in price. For more information, write us today!

*Proven by
Performance*

**IDEAL
Speed-Freeze
PRODUCTS**

IDEAL COOLER CORP. 2953 EASTON AVE.
ST. LOUIS 6, MO.

Products of
BORG-WARNER**PASSKEYS TO PROFITS**

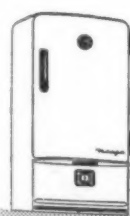
At the July Market (Furniture Mart, Chicago, July 7-19,
Space 521-522) we'll have some shiny new "keys" for
retailers to use in unlocking new portals to profits.

We expect to "steal the show" again this year . . . for

Norge retailers, the future never looked brighter!

"The Best Dealer in Town Sells NORGE!"

Norge is the trade-mark of Norge Division, Borg-Warner Corporation,
Detroit 26, Mich. In Canada: Addison Industries, Ltd., Toronto, Ontario.



Refrigerators



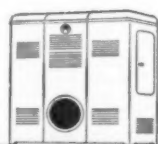
Electric Ranges



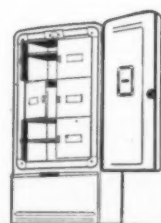
Washers

Electric
Water Heaters

Gas Ranges



Home Heaters



Home & Farm Freezers

SEE
NORGE
BEFORE YOU BUY

Towse Elected President Of N.Y. Contractors Guild

NEW YORK CITY—Robert A. E. Towse was elected president of the Refrigeration and Air Conditioning Guild, Inc., an organization of refrigeration contractors in the metropolitan New York area, at the recent annual meeting of the group, it was announced here.

Other officers elected include Nathan Edelstein, vice president;

Bela Spitz, secretary; Theodore Schwartz, treasurer; and James H. White, sergeant at arms.

New regional vice presidents for the several boroughs are: Joseph Ulrich, Brooklyn; Leo Marks, Manhattan; Sam Kesselman, Queens; and Harry Zysman, The Bronx.

Elected to the board of directors were Herman Nielsen, Charles Navlen, Max Sussman, George Wells, Herman Tirico, Joseph Lipack, and Jacob Achs.

The new officers were installed at an annual dinner dance held in the Hotel New Yorker.

REMA-REWA Discuss All-Industry Show Plans

CINCINNATI — Discussions and planning for the Fifth All-Industry Exposition to be held in Cleveland next January pre-occupied directors of R.E.M.A. and R.E.W.A. at their joint meeting held recently in the Netherland Plaza hotel here.

In a separate meeting the Refrigeration Equipment Wholesalers Association voted to schedule their annual meetings in January, every other one being held in connection with the All-Industry Show.

The group's meeting next January will be limited to one day when the exhibit will not be open, it was decided.

Directors of the Refrigeration Equipment Manufacturers Association were also urged by the R.E.W.A. board to consider Atlantic City as the location for the Sixth All-Industry Show, planned for 1950.

One new member was voted in by the R.E.W.A. board—Sam Schwartz of 2071 Webster Ave. in the Bronx, New York City.

Bogus Steel--

(Concluded from Page 1, Column 4) orders already taken if the scheme were successful.

A public hearing on disclosures is scheduled to be held when the investigation is completed. The FBI was called in to help run down the racket.

It was announced earlier that evidence of irregularities in steel transactions was being turned over to the Department of Justice. The announcement came after the subcommittee had heard testimony from Herbert M. Karp, Brooklyn attorney, and E. A. Kerschbaumer, Pittsburgh steel broker, key figures in a \$50,000,000 steel deal which failed to come off.

As the subcommittee continued its inquiry, other witnesses were to include T. A. Duerr, Troop Water Heater Co., Pittsburgh, and Al Levinson, Steelcraft Engineering Co., Cincinnati.

Mr. Duerr was expected to discuss a complaint that he had been unable to buy steel despite having been a customer of one producer for years.

Excise Tax Data

Demand for Taxed Refrigerator and the Untaxed Vacuum Cleaner And Washing Machine

APPENDIX C

The national estimate* based on the number of families answering "yes" to the question "Would you buy a (refrigerator, sewing machine, etc.) right away if there were plenty of everything in the stores?" are shown in the following table:

Appliance	No. of People Who Say They Would Buy Right Away
Electric Refrigerator	5,852,000
Washing Machine	5,834,000
Vacuum Cleaner	4,501,000
Home Radio	5,085,000
Electric Iron	5,195,000
Sewing Machine	3,451,000

These figures should speak for themselves. Certainly 5,852,000 consumer units would not be concerned about the immediate purchase of any article except one which they considered of greatest necessity to their welfare. Why, then, should there be tax discrimination?

*Note: Data contained in Appendices C, D, and E was published in a report issued by the Office of Civilian Requirements and entitled "Consumer Intention to Purchase Household Appliances and Miscellaneous Household Articles" Sept. 8, 1945, Series D, Number 6. Statistics were compiled from survey conducted in April, 1945 by the Special Survey Division of the Bureau of the Census.

Regulation W--

(Concluded from Page 1, Column 3)

During the hearings the House committee has heard much criticism of Regulation W from retailers, banking interests, loan companies, and union spokesmen.

In his testimony last week M. I. Behrens, Jr., vice president and general manager of Ludwig Baumann, New York City, pointed out that outstanding consumer credit now is only \$1,600,000,000 about 0.6% of the total national income, and approximately half of present charge accounts, which are not regulated.

New Method for the Return and Credit of Empty "Freon" Cylinders

Effective June 1, 1947, Kinetic Chemicals, Inc., issues credit or allows refund of original deposits on "Freon" cylinders to the party returning empty cylinders in accordance with the following stipulations:

1. Cylinders returned for credit or refund must carry identification "K C INC" stamped in steel shoulder of cylinder.
2. Empty cylinders are to be shipped to Kinetic Chemicals, Inc., Carney's Point, New Jersey, by rail freight, specifying P.R.S.L. as the delivering carrier; charges collect.
3. Copy of bill of lading, classifying shipment as "Empty compressed gas cylinders old other than coppered or nicked," and notification in form of debit memorandum or letter listing number of cylinders by sizes and serial numbers, which appear indented in steel immediately below specification "ICC-4B 300," must be forwarded to arrive in advance of receipt of shipment by Kinetic.
4. Credit or refund covering original deposit will be forwarded to the party re-

turning cylinders upon receipt and inspection of empty "Freon" cylinders returned in undamaged and usable condition. Deductions will necessarily be made for missing parts of cylinders.

5. Each cylinder returned should contain shipping tag showing consignee as Kinetic Chemicals, Inc., and the name and address of consignor. Tags will be furnished by Kinetic on request.

Kinetic reserves the right to reject cylinders which have not been returned within 180 days from date of original shipment by Kinetic.

It is believed that this new method of handling will simplify accounting procedures, eliminate multiple handling of funds or credits, and will expedite receipt of refund or credit by the party returning empty "Freon" cylinders to Kinetic. Debit instructions for the return of empty "Freon" cylinders, and credit or refund on these, may be obtained from your regular supplier or Kinetic Chemicals, Inc., Tenth and Market Streets, Wilmington 98, Del.



PLEASE RETURN EMPTY "FREON" CYLINDERS PROMPTLY
Ship freight collect to:
Kinetic Chemicals, Inc.
Carney's Point, New Jersey

FREON
REG. U. S. PAT. OFF.

safe refrigerants

FREON IS KINETIC'S REGISTERED TRADE MARK FOR ITS FLUORINE REFRIGERANTS AND PROPELLENTS

TEMPRITE 2-TEMPERATURE VALVES..



- Wide range of adjustment.
- Close temperature control.
- Rugged construction.
- Quick and easy adjustment.
- Large gas capacity. Low pressure drop.
- Extremely sensitive operation.
- 5 models. Capacities up to 250,000 btu.

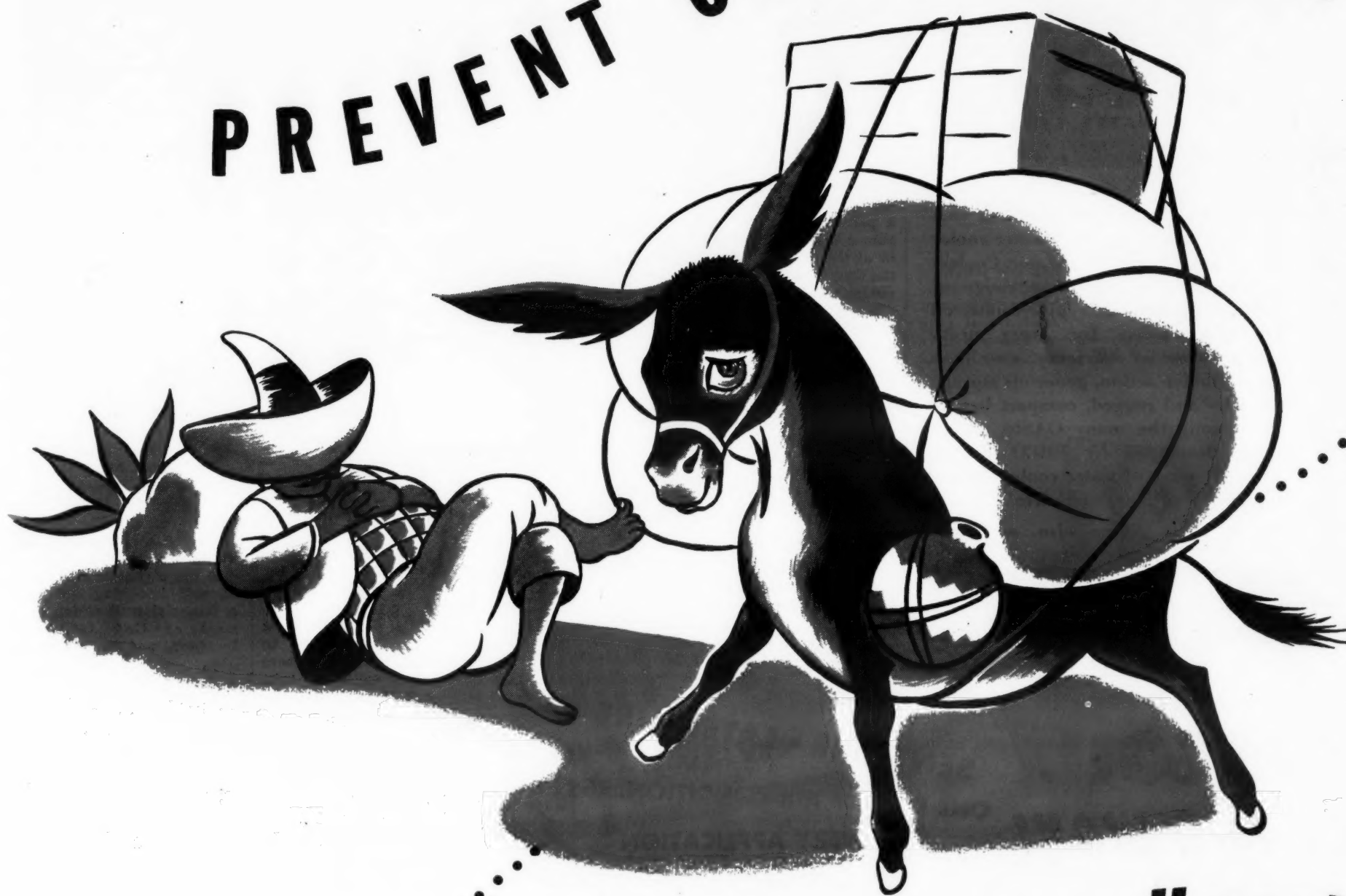
TEMPRITE PRODUCTS CORP.
43 PIQUETTE AVE. • DETROIT 2, MICHIGAN

Available Immediately

Seven new refrigeration units. Complete, self-contained. Automatic control, gas engine driven, direct drive. Freon type—12,000 BTU per hour. MDL OCE-300 F.L.G.-A. Mfg. by Universal Cooler Corp. Overall dimensions, 43" wide, 72" deep, 82" high. Continental 4 cyl. gas engine, water cooled, 4 cycle. "L" head type. SAE rated 10.0 HP compressor. Universal 2 cyl. vertical reciprocating type. Generator MDL #GBM 4017 A. Electric starting motor MDL MZ-4046, mfg. by Electric Auto Lbr. Storage battery 6 volts, 100 amp. hour. No. MW-1110 (Willard Storage Battery Co.). Gasoline tank capacity 25 gal. Refrigerant charge (Freon-12) 15 lbs. Packed one unit per wood box. Gross wt. 3022 lbs. Cu. ft. 167 per box. PRICE \$800 each. F.O.B. Catskill, N. Y.

MICHAEL CIMORELLI
CATSKILL, N. Y.

PREVENT OVERLOADING



... during "pull-down" period

with the Alco THERMO-LIMIT Valve

Now it's easy to protect motor and compressor against overloading. Operation of the Alco THERMO-LIMIT Valve is automatically limited to five predetermined suction pressure settings: 10, 15, 30, 45, or 55 pounds.

Quickly interchangeable cartridges do the trick. And the THERMO-LIMIT is liquid-charged, so you can install it in any location or position.

Available at your wholesaler's for smaller capacity commercial refrigeration. Ask for our Bulletin 152.



ALCO VALVE CO.

853 KINGSLAND AVE. • ST. LOUIS 5, MO.

Designers and Manufacturers
of Thermostatic Expansion
Valves; Pressure Regulating
Valves; Solenoid Valves;
Float Valves; Float Switches.

1ST in line at thirst time



OASIS

ELECTRIC WATER COOLERS

—and first in line with features that win approval from every water cooler user. OASIS Electric Water Coolers are made in a complete range of portable bottle and pipe-connected pressure models for every need. Extra "lowside" efficiency, easy dial-type bubbler action, generous storage capacity and rugged, compact beauty are among the many OASIS advantages developed by EBCO during their 20 years of water cooler leadership. Write for complete details. EBCO glass fillers also available.

THE **EBCO** MANUFACTURING COMPANY
401 W. Town St., Columbus 8, Ohio

INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1)
government, operating through administrative law.

"Considering how alien this doctrine is to all native American thinking, the general acceptance of paternalism, now strangely called 'Liberalism,' is literally appalling."

Let's consider this beguilingly attractive paternal state idea a little further to see why it should appall wise Mr. Morley so much.

First of all, when a State goes into the "welfare business," it must have a plan. The more "welfare" it presumes to provide, whether arbitrarily or at the behest of the people it rules, the longer and broader that plan becomes.

Where there are plans, there must be planners. And these planners, in order to carry out their plans, must get into office. Once in office, they must have time to develop their plan.

This need for time means that the planners cannot be faced with the threat of having a rival group of planners supplant them in a few years. That would upset their plan, naturally, because the new planners would have ideas of their own.

Furthermore, once a master plan is decided upon, its executives cannot make that plan run smoothly when it is being constantly attacked by the opposition.

Does the pattern begin to sound familiar? Of course it does, because in all history planning has degen-

erated into dictatorship. And all dictatorships eventually wage war to save their own skins.

What effect will grandiose planning for the "general welfare" have on the democratic, free nation we Americans are so proud of—in the long run? Answer: study history, and be disillusioned.

To put it bluntly, socialism, which is what most "general welfare" plans turn out to be, eventually, cannot operate in a democracy. Socialism, in any of its forms, breeds control. Like an opiate, mild controls beg for larger controls, until in the end the supposedly sick patient is entirely at the mercy of the doctors.

The more socialism we have, the less freedom we have.

The more the people allow for government to do for them, the less they will be allowed to do for themselves.

We are not being original when we say that a people can lose their liberties by default as surely as by force. When the economic freedom of a people is mortgaged, their political freedom vanishes, too. It has always been so, and it always will be so.

What Is 'Real Income'?

When one tries to compare the "real income" of the American people at any particular time with their real income at another time—say, between 1939 and 1946, he is asking for trouble.

There are so many hidden factors that must be taken into consideration that a distorted comparison is almost inevitable.

Yet despite all these undeniable shortcomings which rise up to befuddle comparable statistics, there are some brave souls willing to take a shot at making such comparisons.

By comparing government statistics, evaluating the purchasing power of the 1946 dollar in terms of the 1939 dollar, deducting Federal income and employment taxes, and making adjustments for changes in the cost of living, one coterie of economists has produced some interesting figures.

They have found that the average spendable income for farmers had risen 155% from the fall of 1939 to autumn, 1946. Over this same period, the average spendable income of bituminous coal miners jumped 61%. This is at least a 10% greater increase in income than any other

American "class" enjoyed except the farmers. (Mr. Lewis, take a bow!)

Down in the middle of the list of "real income" gainers somewhere could be found the electrical machinery workers who are said to have improved their average "real" weekly income by 15%.

On the other end of the scale, those poor creatures who teach our children suffered a 20% drop in real income between 1939 and autumn 1946. Not far behind the educators in the loss column were our Federal, state and local government employees.

We can all sympathize with the school teachers, at least, even though we may not sympathize with their "progressive" methods—which slight the "Three R's" and even ignore the alphabet! (Current joke: "Children enrolled in progressive schools don't know their R's from a hole in the ground.")

But darn few people can recognize or sympathize with the dilemma of the business executive who has incurred heavy obligations. He's hard hit.

According to the statistics, he has received a 25% increase in his real income during the past seven years. However, his taxes have increased at least 65% during that period, and his purchasing power has dropped another 65% (those concessions he used to get aren't available now). He's in bad shape, especially since he must "live up to his role" (by his dress and address).

The industrious fellow whose brains and ability have taken him into the higher income brackets finds himself knocking his head against a financial wall which is at least as hard as that facing the school teachers, and probably much more.

In making our free enterprise system work, this man who has foresight, 'know how,' good judgment, limitless ambition, and investment money is right in the front line. He is the man who creates new ideas, and is willing to bet on them. He nurses them along until they blossom forth into a paying proposition which makes money for himself and his investors, new jobs for hundreds or thousands of people, and life easier for even more.

Yet, is he fairly rewarded for his enterprise? Under our present tax laws, the more he earns, the less real income he gets. How can the Free Enterprise System get a fair test under these unfair rules?

AMCOIL ALL THE WAY!

SENSAIRE • LATENAIRE
ONE LINE OF AIR CONDITIONERS
FOR EVERY APPLICATION

DEALERS
DISTRIBUTORS
WHOLESALE
AMCOIL means
profits for
you!

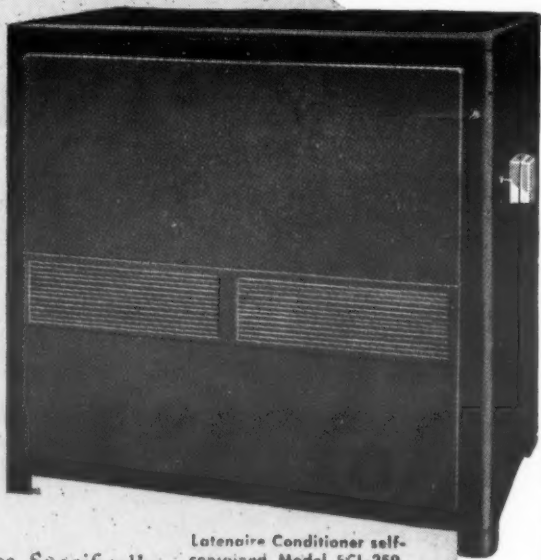
Cash in on the Amcoil Sensaire and the Amcoil Latenaire Conditioners—the complete line of air-conditioners. Fast Moving—Nationally Advertised—Remote and Self-contained Types—Immediate Deliveries—PROFITS FOR YOU! Act Now!

AMCOIL LATENAIRE CONDITIONER

The answer to human comfort in warm humid climates—thrives on humidity! Patented revolutionary operating principle literally wrings moisture out of the air! Provides cool, healthfully conditioned air without that clammy ice-box feeling. Adjusts automatically to varying temperature and humidity conditions. Fully equipped, remote and self-contained models. Attractive streamlined cabinets make a handsome addition to any room.

AMCOIL SENSAIRE CONDITIONER

The answer to human comfort in warm dry climates. Specifically designed for comfortable air-conditioning wherever sensible heat loads predominate. Efficient, quiet operation; in both remote and self-contained types. Fully equipped. Beautifully streamlined cabinets, finished in attractive two-tone brown, crackle baked enamel.



Lataire Conditioner self-contained Model SCL-250. Pat. No. 2,405,812.



Amcoil Extended Surface Fin Increases Capacities. Pat. No. 2,402,262.



DISTRICT OFFICES:

Philadelphia: 250 North 15th Street, Rittenhouse 6-9563
Chicago: 215 W. Ontario Street, Superior 4859

JUST OFF THE PRESS

Send for your copy of the new AMCOIL Air-conditioning catalog. Attractively printed in color, it describes and illustrates the complete line. Also included are complete engineering and selection tables along with a handy, new heat load calculator chart. Write today!

MANUFACTURER'S REPRESENTATIVES

A. J. Nelson Co., 1635 Blake St., P.O. Box 2244, Denver Colo. • William D. Keefe, Chaffee, New York • J. York Feitel, 813 Howard Ave., New Orleans, La. Robbins-Greenwood Co., 3104 Main St., Houston 4, Texas • J. E. Oliphant & Co., 505 Uhler Bldg., Marion, Ohio • Wm. G. McGuire, 691 Yorkshire Rd., N.E., Atlanta, Ga. • Russell Sales Co., 1421 S. Broadway, Los Angeles 15; 666 Mission St., San Francisco 5, Cal.; 1553 N. 37 St., Seattle 3, Washington

NOW AVAILABLE! SENSATIONAL ELECTRONIC DEVICE

SHUR-TEMP FREEZER ALARM

Here's an electronic alarm that is a money-maker... It gives positive protection for home, farm and commercial plant freezers.

IT SELLS ITSELF

- Not connected with electrical supply.
- Operates without capillary tube.
- Encased in unbreakable metal.
- Absolute protection against food spoilage.
- Every low temperature service call means a Shur-Temp sale.
- This is the season for additional profits with Shur-Temp.

EASY TO INSTALL TOO!

Insert the Thermo-Switch inside the freezer; then hang Shur-Temp in any part of building. Takes less than five minutes to install.

FILL OUT THE HANDY COUPON

ORDER CARD—MAIL IN TODAY

CRAWFORD ENGINEERED EQUIPMENT CO.
413 Merchants Exchange Bldg., St. Louis 2, Mo.
Please ship at once Parcel Post Express Freight
(.....) Shur-temp Freezer Alarms.
No. units
If we are not completely satisfied it is understood that we may return within five days for a refund.
NAME.....
ADDRESS.....
CITY.....STATE.....
Jobber's Name and Address.....

\$15.95

RETAIL PRICE

\$9.57—DEALERS PRICE F. O. B. WRIGHT CITY, MISSOURI

2% CASH DISCOUNT ON ORDERS OF 12 UNITS OR MORE

Price subject to change without notice

Double Filters, 2 Moving Parts Feature New Frigidaire Commercial 'Meter Miser'

DAYTON—Frigidaire Division of General Motors Corp. has released some additional design and specification details on the recently introduced commercial models of the "Meter Miser" rotary, sealed condensing units.

The compressor has two moving parts—the impeller and the divider. The compressor and a brushless motor are mounted inside a welded steel case.

The condenser is mounted on a "doughnut type" liquid refrigerant receiver, and wraps around the sealed unit assembly. Triple-spring suspension features the unit mounting. "Freon-12" is the refrigerant used.

Refrigerant coming from the evaporator is filtered twice before re-entering the compressor. A screen in the service suction valve acts as a scale trap and filter. A second screen is inserted in the intake in the bottom of the sealed unit. Conical shape of this screen is claimed to prevent pressure drop. Additional pancake type screens filter all liquid refrigerant as it leaves the receiver.

The compressor is surrounded by a permanent bath of clean oil in the sealed case. Positive pressure lubrication is accomplished by the spiral groove of the motor shaft which forces oil up the shaft as it rotates and between all bearing surfaces and moving parts.

Compressed refrigerant which has cooled in a special finned heat remover is passed over the motor to provide a cooler motor for longer life. Only cooled refrigerant enters the dome of the sealed case, thus holding down motor heat. Further cooling of the dome and motor is obtained by a forced air stream.

Separation of oil from the refrigerant is obtained by the heat remover just described. Oil discharges into the top and passes through openings in the rotor and stator to the oil sump.

The motor stator is pressed into the steel case to secure correct alignment. The tight fit of the stator makes possible metal-to-metal contact to the shell with heat transfer from stator to the outer air.

The dynamically balanced rotor has a hardened steel shaft which drives the rotary compressor impeller. The large main bearing surface for the vertical rotor shaft has

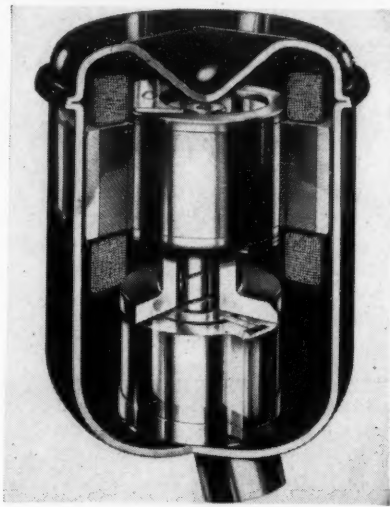
diamond bore accuracy to reduce friction.

Electrolytic capacitors provide high starting torque. Minimum starting load conditions are claimed to be obtained through the use of a check valve which permits the high and low pressure refrigerant in the compressor to equalize on the off cycle.

Normal motor control is automatic, with switch control being actuated by the low pressure side of the system. An automatic overload protector with an automatic reset device protects against overloading. A thermal overheat protector stops the motor if the temperature passes normal.

In the condenser design, cool air is drawn through the top shroud of the condenser by a specially designed two-blade aluminum fan, to force a steady air flow across the single pass curved condenser.

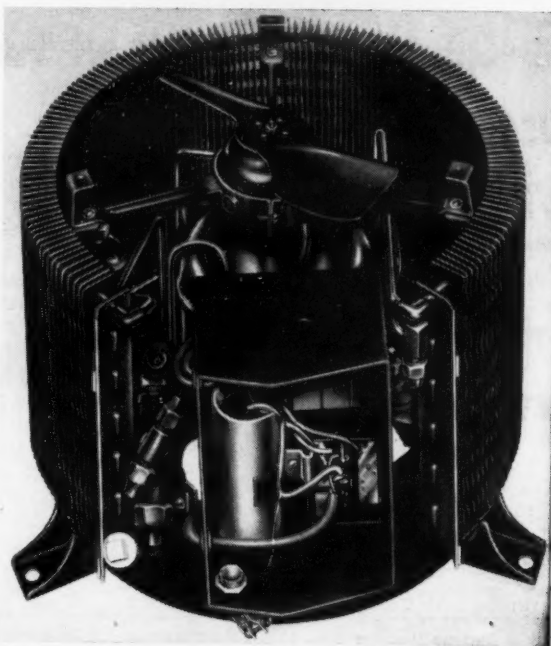
Copper brazing of steel fins and tubes followed by a hot solder dip



provides permanent one-piece condenser construction, the company claims. Fins have been given a "wavy" treatment to set up increased turbulence as a further aid to faster heat transfer.

The 10-inch diameter condenser fan is powered by an enclosed type, brushless motor, mounted in rubber. Motor has ball-bearing, oil-less construction.

Internal working parts of the hermetically sealed compressor developed by Frigidaire for commercial applications are shown in the phantom view at left. Compactness of construction of the complete condensing unit (at right) is one of the features claimed by the company for the new "king size" version of its "Meter Miser" unit.



Liquid refrigerant is stored in the horizontal "doughnut shaped" shell-type, steel receiver. A fusible safety plug is provided.

A two-way service suction valve has an outlet for gauge connection.

Liquid valve at receiver permits liquid refrigerant pumpdown. A purge valve is provided and is used as a gauge connection for the high pressure side.

All electrical controls and relays are grouped in a large control box.

Now Available FOR PROMPT SHIPMENT

"DETROIT" NO. 573 THERMOSTATIC EXPANSION VALVES

The immediate popularity of the new "Detroit" No. 573 Thermostatic Expansion Valve far exceeded our initial capacity.

Now we are in full swing, with ample production to promptly ship your orders.

The "Detroit" No. 573 has the quality and operating characteristics of the No. 673. Designed for small commercial installations, its double diaphragm gas-charged power element permits close superheat control at low suction pressures and provides motor overload protection in its simplest, most effective form, using only one power element.



"DETROIT"

Frigidaire Design Data

TABLE OF CAPACITIES

Model	Average Temperature °F.	Average Suction Pressure Lbs.	B.T.U. Refrigeration Capacity per Hr. Temperature of Condensing Air			
			70°F.	80°F.	90°F.	100°F.
MM1	36°F.	33.4	2665	2515	2370	2250
MM1	28°F.	26.9	2280	2165	2050	1945
MM1	20°F.	21.0	1960	1855	1755	1665
MM1	11°F.	15.2	1650	1560	1475	1390
MM1	3°F.	10.7	1395	1320	1245	1175
MM1	-9°F.	4.9	1065	1010	955	900
MM1	-21°F.	0.0	795	755	720	675
MM2	36°F.	33.4	4500	4300	4100	3850
MM2	28°F.	26.9	3950	3787	3625	3387
MM2	20°F.	21.0	3450	3300	3150	2950
MM2	11°F.	15.2	2925	2787	2650	2487
MM2	3°F.	10.7	2500	2425	2250	2125
MM2	-9°F.	4.9	1900	1812	1725	1625
MM2	-21°F.	0.0	1400	1337	1275	1200
MM3-1	36°F.	33.4	6430	6150	5875	5510
MM3-1	28°F.	26.9	5650	5410	5175	4835
MM3-1	20°F.	21.0	4900	4685	4475	4195
MM3-1	11°F.	15.2	4160	3965	3775	3545
MM3-2	3°F.	10.7	3560	3390	3225	3025
MM3-2	-9°F.	4.9	2740	2605	2475	2335
MM3-2	-21°F.	0.0	2050	1960	1875	1760

Note: The above capacities are based on use of heat exchangers for refrigerant temperatures below 5°F., and are for 60 cycle 115 volt current except Model MM3-2 which is 230 volts. For capacities with 50 cycle 115 volt current, multiply the above B.T.U. per hour capacities by .83.

TABLE OF SPECIFICATIONS

Model	MM1	MM2	MM3-1
Compressor Horsepower	1/4	1/2	3/4
Displacement (cu. in. per rev.)	750	1,418	2,073
Impeller Height (in.)	9.114	1.8750	2.7455
R.P.M. (60 cycle)	1725	1725	1725
Compressor Motors*			
Voltage	115	115	115
Cycles	50/60	50/60	50/60
Condenser Fan H.P.	1/100	1/100	1/70
Receiver Capacity (lbs.)	1450	1450	1600
Minimum Operating Charge (lbs.)	3	3	3
Factory Charge:			
"Freon-12" (lbs.)	3	3	3
Oil, 525 viscosity (oz.)	20	23	27
Refrigerant Connections (in.)			
Suction (O.D. Flare)	1/2	1/2	1/2
Liquid (O.D. Flare)	1/4	1/4	1/4
Purge (O.D. Flare)†	1/4	1/4	1/4
Overall Dimensions (in.)			
Height (A)	16	16	18-7/16
Diameter Over			
Condenser	17 1/2	17 1/2	17 1/2
Height (B)	10-3/16	10-3/16	12 1/2
Width Over Legs	18 1/2	18 1/2	18 1/2
Depth, control box to back legs	20 1/4	20 1/4	20 1/4
Diameter through mounting holes	18 1/2	18 1/2	18 1/2
Net Weight (lbs.)			
Shipping	85	95	110
	110	120	135

*Model MM1 equipped with one electrolytic capacitor for starting; Models MM2 and MM3-1 are equipped with two. An oil capacitor is also used for running on Model MM2-L.

†Special adapter fitting required for gauge pressure.

You Can Start Your Reputation on These Two

"DETROIT" No. 573 No. 673 THERMOSTATIC EXPANSION VALVES

You can place complete dependence upon these two valves. Make your reputation on them—day after day for years. By these valves no commercial installation runs 5 to 10 per cent lower.

DETROIT LUBRICATOR COMPANY

A Pair of Winners "DETROIT" THERMOSTATIC EXPANSION VALVES

These two valves have the reputation of being the standard of construction that makes them winners in every respect.

DETROIT LUBRICATOR COMPANY

DETROIT LUBRICATOR COMPANY



General Offices: 5900 TRUMBULL AVENUE, DETROIT 8, MICHIGAN

Division of AMERICAN RADIATOR & Standard Sanitary CORPORATION

Canadian Representatives — RAILWAY AND ENGINEERING SPECIALTIES LIMITED, MONTREAL, TORONTO, WINNIPEG

"Detroit" Heating and Refrigeration Controls • Engine Safety Controls • Safety Float Valves and Oil Burner Accessories • "Detroit" Expansion Valves and Refrigeration Accessories • Stationary and Locomotive Lubricators

4th Quarter Shipments of Farm & Home Freezers Totalled 97,934 (\$18,593,912); Bureau of Census Summary Shows 210,248 Units (\$42,194,304) Shipped In '46

Shipments of Complete Units

(Includes a small number of combination cooler-freezer units)

Size	Total No.	Total Value (dollars)	Self-Contained Units No.	Self-Contained Units Value (dollars)	Remote Units No.	Remote Units Value (dollars)
1946 Total	210,248	42,194,304	204,020	39,811,481	6,228	2,382,823
Under 6 cubic feet	69,179	7,811,202	69,179	7,811,202	0	0
6.1 to 8 cubic feet			34,826	5,608,933		
8.1 to 12 cubic feet	*97,020	*19,894,100	28,318	5,936,212	*553	*126,135
12.1 to 15.9 cubic feet			33,223	8,222,820		
16.0 to 20 cubic feet	28,446	8,093,416	27,136	7,751,634	1,310	341,782
Over 20 cubic feet	15,603	6,395,586	11,238	4,480,680	4,365	1,914,906
Fourth Quarter Total	97,934	18,593,912	96,146	17,725,089	1,788	868,823
4 cubic feet and under	19,657	1,932,129	19,657	1,932,129	0	0
4.1 to 6 cubic feet	21,724	2,828,307	21,724	2,828,307	0	0
6.1 to 8 cubic feet	16,140	2,627,738	16,140	2,627,738	0	0
8.1 to 12 cubic feet	*21,656	*5,037,466	11,088	2,372,533	*46	*17,273
12.1 to 15.9 cubic feet			10,522	2,647,660		
16.0 to 20 cubic feet	11,954	3,399,969	11,805	3,339,299	149	60,670
Over 20 cubic feet	6,803	2,768,303	5,210	1,977,423	1,593	790,880

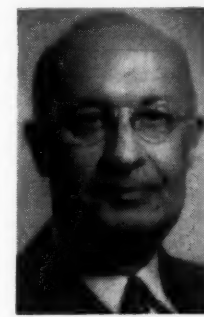
Purchases of Components

Size	Condensing Unit No.	Compressor Unit No.	Forced Air Evaporator No.	Enclosure Only No.	Total Purchase Value (dollars)	No. of Companies
1946 Total	142,471	18,940	507	1,375	9,264,134	128
Under 6 cubic feet	29,933	1,779	12	0	1,448,059	33
6.1 to 8 cubic feet	22,668	7,847	68	0	1,243,907	19
8.1 to 12 cubic feet	25,063	2,400	0	14	1,519,974	49
12.1 to 15.9 cubic feet	25,719	3,401	27	51	1,747,304	52
16.0 to 20 cubic feet	24,493	1,602	400	979	2,035,025	71
Over 20 cubic feet	14,595	1,911	0	331	1,269,865	45
Fourth Quarter Total	53,111	9,570	200	711	3,491,162	100
4 cubic feet and under	2,079	0	0	0	71,135	6
4.1 to 6 cubic feet	11,998	849	0	0	600,599	15
6.1 to 8 cubic feet	9,986	3,362	0	0	535,915	16
8.1 to 12 cubic feet	9,396	821	0	0	606,930	36
12.1 to 15.9 cubic feet	5,277	2,751	0	8	444,042	38
16.0 to 20 cubic feet	9,489	426	200	656	755,429	49
Over 20 cubic feet	4,886	1,361	0	47	477,112	33

*Combined to avoid disclosure of operations of individual companies.

40 Years with DuPont, Thomas Coyle Retires

WILMINGTON, Del. — Thomas Coyle, manager of the DuPont Co.'s Chloride Products Division, retired May 31 after more than 40 years in the chemical industry.



Thomas Coyle

DuPont announced that the Chlorine Products Division and Solvents Division would be merged into the Chlorine Products Division headed by C. B. Shepherd, now manager of the Solvents Division. Mr. Coyle was with the Roessler & Hasselacher Chemical Co. as an engineer when that company was acquired by DuPont in 1930. He entered into sales work with DuPont and became well known in the refrigeration industry through his connection with the distribution of refrigerants produced by what was then known as the R & H Chemicals Department, and is now known as the Electrochemicals Department.

Crosley Appoints W. M. Shipley Eastern Regional Manager

CINCINNATI — Appointment of William M. Shipley to the position of eastern regional manager has been announced by S. D. Mahan, director of sales and advertising, Crosley Division—Avco Mfg. Corp.

Mr. Shipley returns to Crosley after an absence of six years, during which time he served as vice president of Thomas W. Berger, Inc., national sales and merchandising organization. Mr. Shipley served as manager of major accounts at Crosley from 1937 to 1940.

New 4.2 Cubic-Foot INTERNATIONAL HARVESTER FREEZER



with
**FROST-LOK VAC-U-SEAL
TIGHT-WAD**
AND *Other Great*
**HARVESTER
FEATURES**



floating lid with no bothersome obstructions; comfortable toe space... all these, and more, will help International Harvester Refrigeration dealers reach and sell the small freezer market.

Backing them up solidly will be

- Powerful National Advertising
- Coast-to-Coast Distribution
- Effective, Nationwide Service
- Great-Name Prestige

International Harvester Refrigeration offers dealers a unique opportunity for increased volume and new profits—based on outstanding product, powerful local promotion, and unexcelled national background.

**TWO MODELS NOW AVAILABLE—
11.1 AND 4.2 CUBIC FEET**

INTERNATIONAL HARVESTER COMPANY
180 North Michigan Avenue • Chicago 1, Illinois

© International Harvester Co.

Compact, Complete

FROZEN FOOD UNIT FOR SMALLER FAMILIES

Now in production... ready for delivery to International Harvester Refrigeration dealers... a handsomely-designed, wonderfully efficient 4.2-cubic-foot freezer for smaller homes. Fits comfortably, harmoniously, into modern kitchen arrangements. Holds approximately 150 pounds of frozen food.

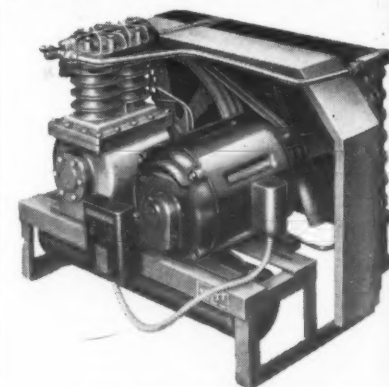
This newest member of the International Harvester Refrigeration line has practically all of the sales-winning features of its big

sister, the 11-cubic-foot Model 11 FC-A, already in national distribution. "Frost-Lok"—smooth, one-piece, uncluttered breaker strip; "Vac-U-Seal"—fiber glass insulation, hermetically sealed against air and moisture; "Tight-Wad"—hermetically sealed refrigeration system warranted for 5 years; welded, seamless, all-steel construction; white enamel finish baked on over Bonderized steel surface, inside and out; full-size

CONDENSING UNITS COMPLETE!

NOW OFFERED TO MANUFACTURERS & WHOLESALERS

A well established unit of exceptionally high quality. Manufactured in the largest and most modern condensing unit factory in the West.



1 H.P. AIR COOLED Illustrated

- **AIR COOLED UNITS**
1/4 H.P. to 3 H.P.
- **WATER COOLED UNITS**
1/3 H.P. to 3 H.P.
- **GAS ENGINE DRIVE UNITS**
1/2 H.P. to 5 H.P.

Service parts available in MAJOR CITIES of the WORLD!
WITT COMPANY
A.H.

672 S. LAFAYETTE PARK PLACE
LOS ANGELES 5, CALIFORNIA

WITT
FOR PROVEN PRODUCTS!

INTERNATIONAL HARVESTER

Refrigeration

THE INTERNATIONAL HARVESTER SYSTEM OF FOOD PRESERVATION

Visible Refrigerator Helps Pharmacy To Get Lion's Share of Summer Sales of Better Candy

Other Boxes Hold Serums and Drugs In Nebraska Store

OMAHA, Neb.—A special refrigerated box for boxed chocolates, a 15 x 3 ft. refrigerator in the prescription room, and a commercial-size refrigerator for vaccines and serums in the veterinary department, have proved invaluable at the Sprague-Benson Pharmacy, 61st and Military Ave., according to John Ferenstein, co-proprietor.

The candy refrigerator has resulted in the capturing of the lion's share of the better candy business for the drug store, in suburban Benson, Mr. Ferenstein asserted. People of the community have learned that we have equipment to keep chocolates in A-1 condition, and whenever they want a box of chocolates to take to someone in the hospital, take home to the wife or to the girl friend, or for any other special occasion, they come to us, he declared.

Sprague's gets practically all of the boxed chocolate business in Benson in the summertime, because no other store is so well equipped to handle chocolates.

The case is a 6 ft., two-door affair housing its own condensing unit, and can be moved readily to any position in the store, but the management has found a mid-way floor position best for selling purposes. On top is a step-up metal display fixture with four shelves. The white enamel finish matches the refrigerator. Two white-enamelled metal risers affixed to the back of the display fixture each serves as a support for a white-enamelled metal shadowbox, about 18 in. long and 4 in. high, with lighted letters suggesting that the patron buy and give famous name chocolates.

Most of the best-known brands of chocolates are carried in the display and the refrigerated storage compartment, and Mr. Ferenstein pointed out that cost of operation is negligible, since a temperature of about 60° F. is best for preservation of chocolates. Lower temperatures

cause the chocolate to turn a lighter color.

Many drug stores have refrigerated storage facilities for chocolates, Mr. Ferenstein said, but their equipment is located where the customers don't see it. The big advantage of his fixture, he said, is that it is out on the floor where everybody notices it.

The 15 ft. refrigerator is a new addition to the store and extends along the bottom of one wall in the prescription room, while the remainder of the wall from the top of

the refrigerator on up is fitted with prescription files. It is a four-door affair in tandem, and one section, nearest the new soda fountain, is used for storage of syrups and other perishables. Remainder of the box is for biologicals.

A large two-section upright refrigerator holds vaccines, serums, sulphadiazine, etc., for the animal health department, and has been largely instrumental in building up a thriving farm trade, Mr. Ferenstein stated.

To Air Condition Cotton Mill

GADSDEN, Ala.—A \$500,000 air conditioning project for the cotton mill of the Dwight Mfg. Co. here, was announced by company officials.

The new air conditioning system is expected to be completed and in operation about Jan. 1, 1948.

Baker and Ward Form Sales & Service Firm

SOUTH BEND, Ind.—E. B. Ward, former supervisor of agency sales for Tyler Fixture Corp., and D. E. Baker, formerly associated with Gaffill Oil Co. of South Bend, recently organized Baker-Ward, Inc., here to sell and service commercial refrigeration and other equipment.

Mr. Ward, who was connected with Tyler for about 10 years, is president. Mr. Baker, a member of the Gaffill organization for approximately 20 years, is secretary-treasurer. Edith E. Yost is office manager.

In addition to refrigerators, the firm handles air conditioning, oil-burning, restaurant, store, and super-market equipment. It is located at 336 North Hill St.

Henry Valve Co. Appoints Byth as Sales Engineer

CHICAGO—Henry Valve Co. has appointed Douglas R. Byth as sales engineer to cover the territory north and west of Chicago.



Mr. Byth is a graduate of Northwestern university, where he majored in mechanical and civil engineering. During the war he served as a Commander in the U. S. Navy for approximately five years in an engineering capacity. He has had considerable experience as a sales engineer on mechanical devices.

Install these new

PEERLESS

Products for Superior Performance

● The new PEERLESS Unit Coolers are designed for easy mounting, require small space for the work they do. Type "R" is for walk-in and reach-in coolers, Type "S" for beverage coolers, bars, display cases and reach-in boxes.

TYPE "S" UNIT COOLER



NEW TYPE "R" UNIT COOLER

● Extreme adaptability and performance dependably superior at all times make PEERLESS products today's outstanding values in refrigeration. Non-ferrous construction, latest engineering improvements, and rigid standards in manufacture insure maintenance of required temperatures in your installations. PEERLESS products now available include Flash Plates, Flash Coolers, Unit Coolers, Ice Cube Makers, Fin Coils, Off Center Coils, Expansion Valves and Capacity Boosters. SPECIFY PEERLESS!

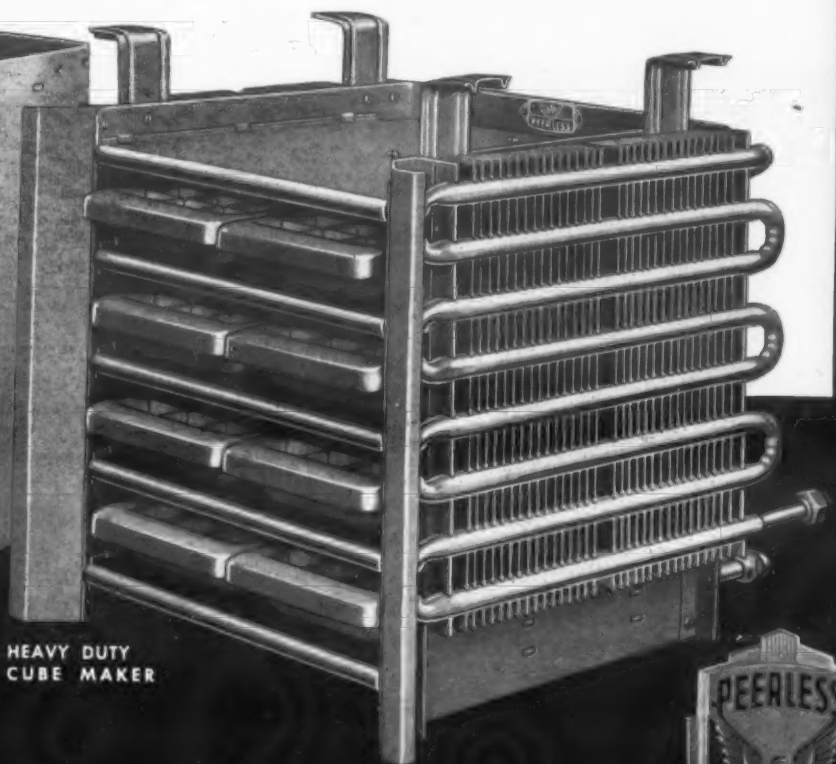
SOLD THROUGH LEADING REFRIGERATION SUPPLY WHOLESALERS



SNAP-OUT CUBE MAKER



NORMAL DUTY CUBE MAKER



HEAVY DUTY CUBE MAKER

● Fast Delivery on PEERLESS Fastfreeze Cube Makers! Left to right are the Snap-Out and Normal Duty Cube Makers and the New Type Heavy Duty Finned Cube Maker with decorative front. Fast freezing is achieved by continuous refrigerant tubes in each shelf. A large range of sizes and tray types answers the need for any installation requiring ice cubes in quantity frequently. Write for specifications.

PEERLESS of AMERICA, Inc.

2901 LAWRENCE AVE.

General Sales Offices

CHICAGO 25, ILLINOIS, U. S. A.



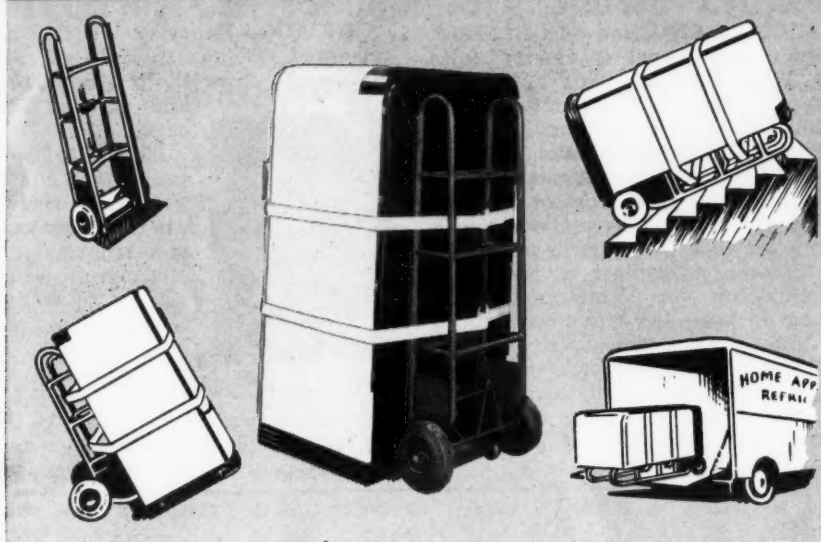
It's a
REVELATION
—that's all!



- ★ Exclusive Dealer Franchise
- ★ Now in quantity production
- ★ All sizes: Industrial and Commercial
- ★ The last word in...

**ELECTRIC
WATER
COOLERS**

Revelation Company
Division of
Interstate Engineering Corporation
2600 Imperial Highway
El Segundo, California

LET THE *Easload* WHEELS CARRY THE LOAD

TRUCKING heavy appliances is child's play when you use an Easload Appliance Truck. You merely slide the Easload under the refrigerator, range or what-have-you—cinch the straps and back the truck away. A touch of the foot pedal swings the big 10-inch rubber tired wheels backward to balance and carry the entire load.

When you go up or down steps, the wheels go into their forward position

and lock by merely kicking the foot pedal. You then slide the load on the smooth tubular truck handles. This feature makes it easier to load and unload your delivery truck also.

All told, there are 11 big, time, trouble, and torso saving features of the Easload Appliance Truck that soon pay for its cost.

Immediate Delivery
\$48.50 f.o.b. Los Angeles, Cal
Capacity 800 lbs.

COLSON EQUIPMENT & SUPPLY CO.

1317 WILLOW STREET LOS ANGELES 13, CALIFORNIA

Field Report

One of the News' most popular prewar features, the newly-resumed "Field Report" prepared by the editors and staff correspondents, will continue to report what distributors, dealers, and service contractors are finding out about the market, effective promotion, prices, service charges, etc.



Decked out in costumes to stress the company's "Jolly Chef" motif, this group makes up the personnel of the north side outlet of North Town Refrigeration Corp., Chicago dealership.

Dealer Promotes Appliance Sales & Service by Staging Meetings of Local Community Groups

By John O. Sweet

CHICAGO—It looks as if the long-missing house-to-house appliance salesman soon will be putting "one foot in the door" again. Spurred to action by the growing

intensity of the buyers' market, some appliance retailers are busily "tooling up" for a return to old-time selling techniques.

For instance, North Town Refrigeration Corp., operator of two outlets here (one on the north side and one on the south side), now is hard at work on plans to:

1. Develop separate "inside" and "outside" sales forces.
2. Hold planned sales training classes.
3. Sponsor various activities in the stores for clubs, lodges, religious societies, and other groups.
4. Conduct a direct-mail campaign.
5. Increase advertising, possibly including use of daily newspapers.

This program, aimed at bringing in customers from all parts of the city, was originally scheduled for mid-summer launching. But, President Thomas J. Reedy readily admitted, the sudden shift in selling conditions "caught us unawares."

Sitting in his rather impressive office which separates the 75 x 90 ft. salesroom and the 30 x 125 ft. service section of the air conditioned, radiant-heated north side store, Mr. Reedy broke down the merchandising program outline about as follows.

The corporation's outside selling forces at first will be built up to a nucleus of 12 men for each store, and then perhaps doubled. Salesmen will work from house to house by crews according to a geographical layout.

Overall direction of both sales organizations will be in the hands of a sales manager. Each force is to be headed by a supervisor.

Robert Gayle, who came to North Town Refrigeration after the war with a background of more than 20 years in the merchandising field, has been named sales manager. Supervision of the north side sales force was assigned to Norman Norris. The south division supervisor is yet to be selected.

Feeling that the day is here for real selling, Mr. Reedy planned to waste no time in going into action. He has already sent the first of the new sales forces into the field.

These salesmen were to be equipped with copies of a hand-out folder which serves the dual function of promoting the stores' regular services and inviting local groups to use the stores for entertainment and educational purposes. This folder, which was to be copyrighted, is not intended for promiscuous distribution but rather for those who probably will make use of it.

"If you belong to a group such as a club, lodge, church society, or a parent teachers association, you may arrange to hold a party for your members at either branch without expense to your organization," the pamphlet announces. "We can accommodate 200 people."

"You may select the program you desire. Cooking school, sound movies on a variety of subjects of prime interest to the modern home maker or a demonstration and illustrated talk on the most efficient use of your electrical household appliances."

"Let us know the kind of program

you want. We'll supply it. We will furnish suitable door prizes for the occasion."

Written and laid out with a light touch to make for easy reading, the folder introduces the organization's personnel as "The Jolly Chefs" . . . trained specialists who will aid you in solving any household equipment problem" and who are "expert in recommending the proper appliance to fit the needs of the user."

Photographs of employees dressed in cooks' outfits carry out the "chef" motif. When personnel aid in staging club parties and other promotions, it is planned to have them similarly garbed to further follow through on this theme.

One section of the promotion piece describing service facilities stresses that North Town Refrigeration is the authorized Frigidaire service organization for Chicago (it is also an authorized sales outlet). Another announces that the firm carries an exclusive line of Frigidaire household equipment and other popular brands of merchandise.

Inside sales personnel at each store will consist of one man and one woman. Saleswomen are to be retained in the belief that some women shoppers prefer to ask questions of another woman.

Addressograph equipment has been obtained for the direct-mail campaign. This promotion was still in a formative stage, partially because of the difficulty in securing a competent operator.

One promotion, however, now is in full swing. Since last November, a drive to push the sale of television receivers has been conducted under the direction of Mr. Gayle at the south side store. This has included distribution of tickets for Edison company telecasts picked up on a store set and awarding of door prizes.

There is no question in Mr. Gayle's mind about the necessity of building a sales organization now. Many appliance retailers, he observed, felt the stiffened sales resistance of buyers as far back as the first part of February.

"They found then that they had an inventory of appliances," he said. "They got scared and they started advertising. A lot of them didn't get too good results."

To Mr. Norris, one unmistakable sign of shoppers' changed attitude is their "fussiness about defects." Up until lately, he commented, the public grabbed up practically any needed appliance available, but now many shake their heads at equipment which is only slightly imperfect.

"Again," he pointed out, "wringertype washers are slow in coming through. But they're even getting finicky on these. They want the deluxe model."

"Yes, we really have to sell a good many products now," he observed. "A lot more prospects are getting away than used to."

And, Mr. Norris added, he can't attribute this to high prices. He claimed that not more than 3% objected to the cost of appliances.

This observation jibed with Mr. Reedy's opinion that people are more interested in quality and service than in price.

"Price is soon forgotten," he said, "if they get good merchandise."

While discussing home freezers, Mr. Norris made the interesting point that before volume selling can be achieved among foreign groups such as compose North Town's area, some way must be found to break day-to-day shopping habits. He explained that these people are accustomed to buying fresh foods every day and that they greatly relish daily excursions to the market for the opportunity it gives them to chat with friends.

North Town Refrigeration, now grown to an organization of 65 employees, started out as a Frigidaire service agency for the north side of Chicago. That was back in 1935, when Mr. Reedy opened a store across the street from the north side outlet's present location at 1711 Lincoln Ave.

In June, 1942, North Town became the Frigidaire service organization for the whole city when it took over a Frigidaire service station on the south side. The latter part of the following year, the south town branch moved into its current sales and service building at 7923 S. Halsted St.

The new north side store was occupied by the sales division in March, 1944. Later, an adjoining building was acquired for the service department's new home and the two structures made into one.

Point to the DULUX seal

REG. U. S. PAT. OFF.



Pre-testing like this keeps DULUX out in front. Here, carborundum, forced by air pressure, gives a DULUX-finished panel a severe test for abrasive resistance. One of scores of scientific tests that simulate . . . and surpass . . . actual kitchen wear.

It identifies America's leading kitchen appliance finish . . . helps sell customers and keeps them sold

Your sales story is made easier when you use the famous DULUX Seal as a sales aid. Folks know and respect the name DULUX . . . so point out the seal and remind them of what they're getting in color retention, mar-resistance, and other qualities that mean long-lasting beauty. You can tell them, too, that DULUX is rigidly retested to insure its outstanding durability.

These are sales points of proved value. If your manufacturer is supplying you DULUX-finished merchandise without the seal, ask him to identify the finish with the seal from now on. It not only helps build sales today . . . but "brings them back for more!"

E. I. du Pont de Nemours & Co. (Inc.), Finishes Division, Wilmington 98, Delaware.



BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

Ohio Contractors Launch Campaign for Statewide Refrigeration Safety Code

CLEVELAND—A one-day conference to launch a move for an Ohio state refrigeration code was held recently in Columbus by a group of Ohio refrigeration contractors representing the presidents of local associations affiliated with the National Association of Refrigeration Contractors, and a representative of other cities having NARC members.

Present were NARC's president and executive vice president, Warren W. Farr and Gerald W. Weston of Cleveland, and first vice president Ed Wright of Youngstown; R. A. Connor, president of Central Ohio Association of Refrigeration Contractors, Columbus; Carl Dieter, president of Mahoning Valley Association of Refrigeration Contractors, Youngstown; Paul Sizer, president of Refrigeration Contractors Association of Northwestern Ohio, Toledo; Clyde Sarver, president of Ohio Valley Association of Refrigeration Contractors, Steubenville; George Schuld, vice president of Refrigeration Contractors Association of Cleveland; K. P. Wall, vice president of Refrigeration & Air Conditioning Ass'n, Cincinnati.

Others present were A. G. Dienstel of Bridgeport, M. S. Chapman of Wheeling, W. R. Kromer of Cleveland, J. Nichols of Medina, and W. H. Boye, Earl Yockey and F. J. Zoppel of Columbus.

The opinion was unanimous to work out a safety code with licensing, permits, inspections and bonding of con-

tractors; also licensing be confined to contractors and not mechanics. George Schuld agreed to be chairman of a committee to work this out; each president of a local association would appoint one man to serve with him.

When the code is worked out, efforts will be made to get it adopted in Ohio cities; then, with this uniformity, action can follow to get it adopted as a state code.

Sunblad Joins Seeger

ST. PAUL—R. E. (Rollie) Sunblad has been added to the staff of the Seeger Refrigerator Co. as assistant superintendent of manufacture, according to N. H. Griebenow, vice president and works manager.

Mr. Sunblad comes to Seeger from Northwest Airlines.

Winkler Back at Brunswick As Refrigeration Engineer

MUSKEGON, Mich. — Wynn G. Winkler returned to The Brunswick-Balke-Collender Co. May 19 to resume the duties of chief refrigeration engineer, a position he held prior to going with the Reynolds Metals Corp. in April, 1946.

Mr. Winkler's background in refrigeration engineering covers a period of better than 20 years. He began with Frigidaire in their research department in 1927 and later he was transferred to design and development. He went to the Crosley Corp. in 1932 and stayed until 1935 as chief of their refrigeration laboratory, and then joined Kold-Hold Mfg. Co. as general superintendent for a year before returning to Frigidaire

where he was in charge of design and development for the next eight years.

The position of chief refrigeration engineer has been vacant for the past few months although the duties were delegated to Frank Walsworth in the interim. Mr. Walsworth will continue in the capacity of assistant refrigeration engineer.

Fire Damages Southern Plant

FT. WORTH, Tex.—The Southern Air Conditioning Mfg. Co. plant at 730 Hudgins was badly damaged by a fire of undetermined origin on May 17.

Damages were estimated at \$20,000 by C. B. Wright and Gene Rudd, owners, who said that some of the machinery destroyed was irreplaceable.

Servel Reports Net Profit For Quarter But Has Loss Over Six Months Period

EVANSVILLE, Ind.—A net profit, after taxes and charges, of \$706,605 for the quarter ending April 30 and a net loss of \$75,712 for the six months ending on the same date have been reported recently by Servel, Inc. here.

Earnings per common share for the quarter, after preferred dividend requirements, was 37 cents, the company announced.

The quarterly profit compared with a \$375,635 loss for the same period last year. A loss of \$1,156,320 was reported for the comparable six months period in 1946.

2 Tons Freon

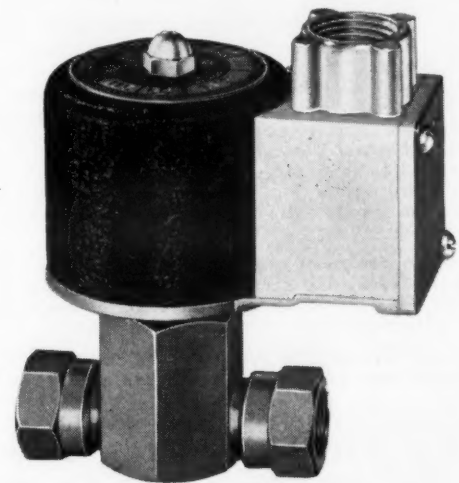
Brass body, renewable soft Neoprene seat. Come-apart construction with rotatable coil and aluminum junction box. $\frac{3}{8}$ " F.P.T. connection.

SV 21

SV 11

1 Ton Freon

Brass body, mounted in standard electrical outlet box. Easily installed. $\frac{3}{8}$ " F.P.T. connections.



INTERNAL PARTS
OF HENRY SOLENOID
VALVES ARE MADE OF
STAINLESS STEEL.

Henry Solenoid Valves
choice of
refrigeration engineers who
want quiet, efficient valves
... of advanced design!



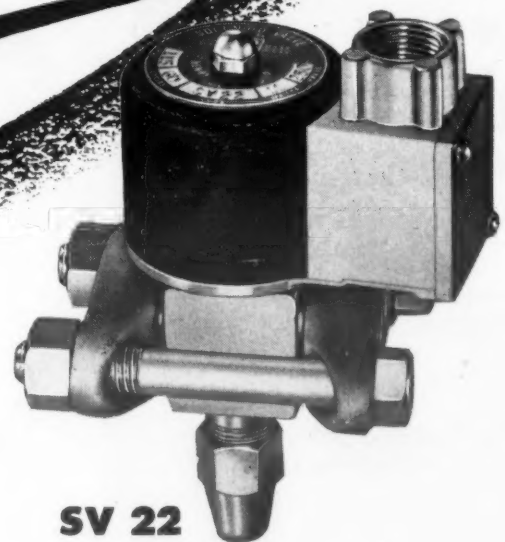
3 Tons and 5 Tons Freon

Brass body, come-apart construction with rotatable coil housing. Two piece impact plunger with direct acting metal-to-metal seat on SV 31. Neoprene seat on SV 51. Manual operating stem. $\frac{3}{8}$ " and $\frac{1}{2}$ " F.P.T. or solder connections.



10 Tons and 20 Tons Freon

Brass body with flanged come-apart construction. Pilot-piston operated. Connections $\frac{3}{4}$ " F.P.T. or $\frac{7}{8}$ " O.D. solder.



SV 22

10 Tons Ammonia

Steel body with come-apart construction and hardened steel renewable seat. Aluminum junction box. Manual operating stem. $\frac{3}{8}$ " and $\frac{1}{2}$ " F.P.T. flanged connections.



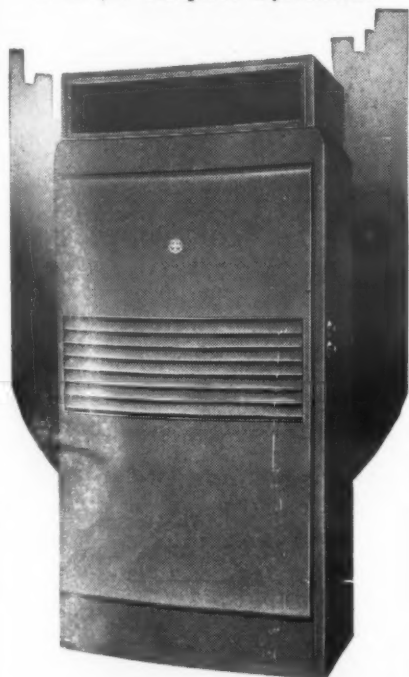
The handsome compact appearance of the TYPHOON self-contained air conditioning unit belies its rugged construction—an engineering achievement backed by over 30 years of practical experience.

Each unit is made to deliver full rated capacity under most difficult conditions—12,000 BTU's of air conditioning performance for every ton of rating. TYPHOON's exclusive large flow-turn cooling coils and the oversized all-copper condenser, are two of the many features that make for trouble-free performance and maximum customer satisfaction.

TYPHOON UNITS
ARE BEING PRESOLD BY
NATIONAL ADVERTISING

A few dealer territories are still open

Write for complete information



Complete air conditioning:
Cooling, filtering, moisture
removal, non-draft circulation
—easy to install—low up-
keep—3-ton, 5-ton, 7-ton sizes
—full rated capacity.

Dept. 212
TYPHOON AIR CONDITIONING CO., INC.
Division of Ice Air Conditioning Co., Inc.
794 Union Street Brooklyn 15, N. Y.

SOLD BY LEADING JOBBERS

HENRY VALVE COMPANY

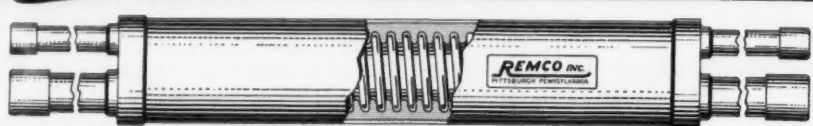
Control Devices, Valves, Driers, Strainers and Accessories for Refrigeration and Air Conditioning and Industrial Applications

3260 W. GRAND AVENUE • CHICAGO 51, ILLINOIS

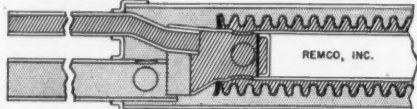
Cable: HEVALCO CHICAGO



REMCO "Liquid-Fin" Heat Exchangers



Soft annealed "O.D." tube liquid and suction connections simplify stocking, since they may be flared or sweat, bent to any desirable shape or direction or shortened as desired for the individual job.



Liquid flows inside the spiral corrugations in "prime" heat exchange relationship with the colder higher velocity suction gases which travel outside the rapid-transer "Liquid-Fin" heat exchanger element. Capacity per unit size is very high.

The industry now has sufficient test data and actual field experience on suction-liquid line heat exchangers to fully appreciate the substantial increase in system capacity and vast improvement in lowside and refrigerant control performance to be gained by their use. They now are accepted as standard components to be included in every new and existing commercial job. Keep in mind, the lower the lowside temperature, the greater the need for, and advantage of, a heat exchanger.

Straight through design of liquid and suction connections, plus 125% minimum flow areas, definitely precludes the possibility of pressure drop in either the liquid or suction circuit, even under maximum operating conditions.

Because the suction gas is on the outside, REMCO "Liquid-Fin" Heat Exchangers may be installed inside or outside of the refrigerated space.

No. 2

ASK YOUR WHOLESALE . . . OR WRITE

REMCO, INC. 49th Street & A.V.R.R. Pittsburgh 1, Pa.

Magnesium 'Reefer' Truck Body Raises Payload by Cutting Vehicle's Weight

By John O. Sweet

DETROIT—Miller Body Division of Refrigeration Sales Corp. here has just finished building what it believes is the first insulated "reefer" truck body made of magnesium—lightest of all commercial metals.

Although a number of companies are now using trucks with magnesium bodies, none of the bodies is for refrigerated transport as far as is known.

Miller Body officials said the 17-ft. body weighs more than a ton less than would a conventional body of the same size constructed of oak stringers and uprights and covered with body metal and canvas roofing.

Gross weight of the truck was given as 7,060 pounds and that of the chassis, including an overlay and frame extension, as 5,200 pounds. This means the body weight is but 1,860 pounds.

The all-magnesium body was constructed for Page & Cox, Detroit wholesale distributor of dairy products. Three Kold-Hold truck plates of the largest size will shortly be installed in the body and 1-hp. compressors in the Michigan and Ohio terminals of Page & Cox.

The project has convinced John R. Miller, president and engineer of Miller Body and Refrigeration Sales, that magnesium has "immense possibilities" for body builders. He figures its use on the Page & Cox body will increase the truck's payload

from 20 to 25%, reduce the license fee considerably, lower gas and oil consumption, and lengthen the life of tires and chassis.

Cost of this body was reported as about 40% more than the ordinary type. But Charles Fitz-Gerald, sales manager of the division, attributed this to the newness of the development and to the fact that a new kind of welding machine and a special type of rivet for clinching panels and forms are used.

Further, he pointed out, the increased payload and other savings means the truck will "pay for itself" in a short time. A Page & Cox official told Miller the new body will enable it to transport as much payload in four loads as it formerly did in five.

A 'Back Country' Truck

It was Page & Cox that got Miller started on the project. The wholesaler asked Miller if it could build a truck light enough to be driven into the back country for eggs.

In looking around for an answer, Miller had occasion to confer with Revere Copper & Brass—one of the leading magnesium fabricators—on this metal's potential for truck bodies. Here, in effect, is what the firm found out:

Magnesium, the most abundant industrial metal on earth, is extracted from such sources as sea water and the brine wells in Michigan. When combined with other metals (such as zinc, manganese, and aluminum), it is changed into high-strength alloys.

These alloys provide one primary advantage over all other structural metals—light weight. Section for section, Revere's alloys have only one-fifth the weight of copper, one-fourth that of steel, and two-thirds that of aluminum.

Durable, Yet Lightweight

But it is the combination of this lightness with strength and stiffness (and with many other important qualities) that make the alloys highly

practical for truck bodies. Magnesium alloy sheets, on a pound-for-pound basis, have twice the bending strength of duralumin, and 14.5 times that of steel. On the same basis, the sheets are 7½ times as stiff as aluminum and 19½ times as stiff as steel.

Less Subject to Corrosion

Other qualities include the best machinability of any commercial metal, higher capacity for absorbing shock per unit of weight than any other commercial metal, and less susceptibility to continued vibration. The alloys are less subject to corrosion by exposure to the atmosphere and many chemicals than is mild steel.

Contrary to the belief of the uninformed, magnesium alloys do not burn easily (the metal does not ignite except when the temperature reaches its molten state). With ordinary shop precautions, there is no more danger of fire in working with magnesium than with other materials in common use.

The cost per pound of magnesium is higher than that of other metals now, but since more than four times more units can be made of a pound than of a pound of steel, the extra cost of material may be offset by greater production and incidental economies. The latter include savings in power, machinery, tool costs, handling, and transportation expense.

Its Use Saves Labor Costs

And these war-tested alloys are now available in extruded shapes and sheets suitable for truck body construction. The shapes and sheets can be fitted together with a minimum amount of work by the body builder at a saving of labor costs all around—a saving which makes the use of the metal economically feasible.

Miller Body found out, too, some of the results already obtained by companies which tried out magnesium truck bodies.

Purity Baking Co., of Charleston, W. Va., is said to have reduced truck

(Concluded on next page)

DOUBLE-TUBE COUNTER-FLOW CLEANABLE WATER-COOLED CONDENSERS

HALSTEAD & MITCHELL CONDENSERS

Greatly [^] Increase the efficiency of any refrigeration System!

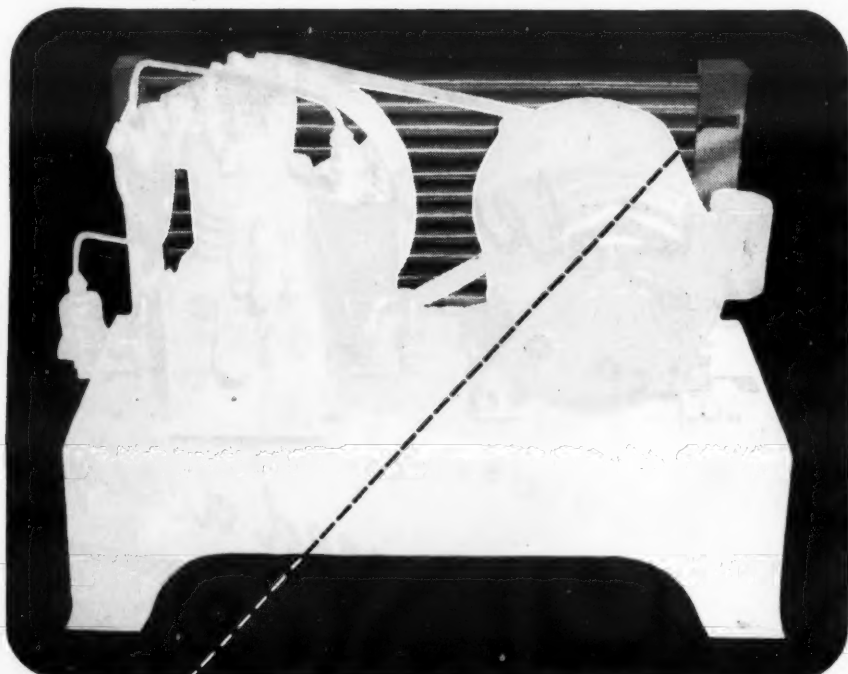
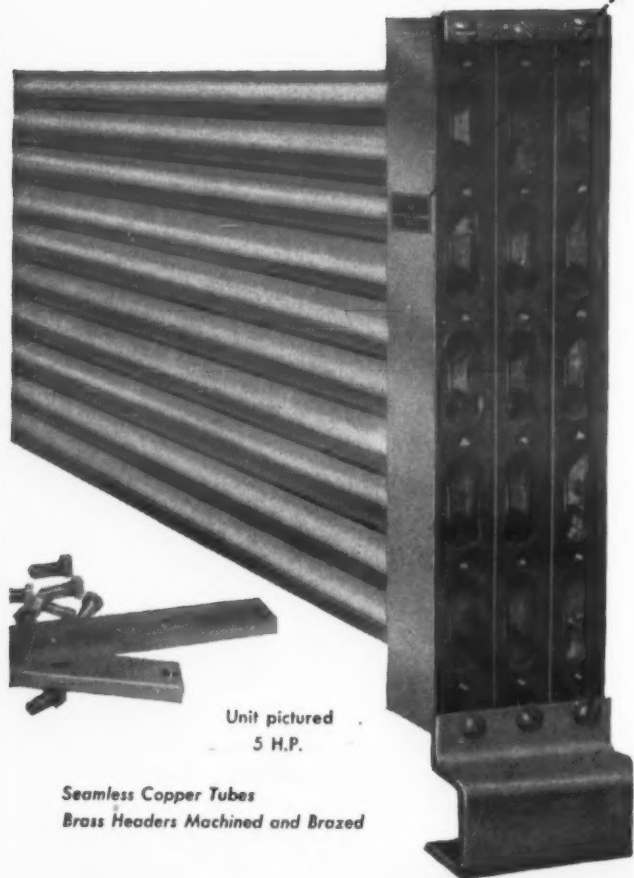


Photo shows 1 H.P. HM Condenser at work in a typical commercial refrigeration unit.

As the age of most water-cooled condensers increases and corrosive material builds up within the water tubes, more and more electrical energy is required and less and less refrigeration is received. Your operation costs, in the form of increasing water and electric bills, will rise because your unit must stay in operation longer to provide the amount of refrigeration needed.

Not so in an HM Cleanable Condenser where the proper heat-exchange efficiencies are continuously maintained for the life of the Condenser. HALSTEAD & MITCHELL Condensers are constructed to outlive and outwear the motor and the compressor of most refrigeration units.

HM Cleanable Condensers can be maintained at "new-unit" efficiency and economy by regular and continued use of a standard cleaning tool. Water tubes are easily accessible at both ends (as shown) for the spiral tool to clean and restore copper water surfaces to their original heat-exchange efficiencies—the result is longer life and operational economy for your refrigeration units.



Unit pictured 5 H.P.

Seamless Copper Tubes
Brass Headers Machined and Brazed

Wholesalers in principal cities Write for descriptive literature.

OFFICES: Bessemer Building, Pittsburgh 22, Pa.

WHAT COOLING UNIT Provides complete air purification, permitting storage of all types of food Without contamination or odor

ANSWER:

Filterpure

Sold by Leading Refrigeration Wholesalers

BETZ CORPORATION

HAMMOND, INDIANA

Reduced 'Deadload' Means Saving In Gas, Oil, Tires In New Type 'Reefer' Truck Body

(Concluded from preceding page)
weight by 1,240 pounds this way. This concern is equipping its entire fleet of trucks with this type of body and expects thereby to reduce fuel costs alone \$1,000 a month.

In another experiment with magnesium, a Philadelphia body-building firm turned out a five-ton panel truck for American Stores Co. with a reported finished body weight of 2,100 pounds. This is about 1,500 pounds less than a similar body of steel.

This reduction in deadload, Revere pointed out, can be taken advantage of in either of two ways, or a combination of both. It can mean savings in gasoline, oil, tires, and general chassis wear, or it can mean an increased payload.

Intangible Savings

Even when the weight taken off the body is added to the payload, certain economies can be effected, Revere said. It called attention to "intangible savings" in gasoline, tires, and brakes when the truck is operated with only a partial load or none at all.

On the basis of this information, it seemed to Miller officials that magnesium alloys would solve its problem. So the project was then undertaken in the division's plant at 8260 E. Eight Mile Road.

Two-Ton Chassis

The body is mounted on a two-ton Ford chassis. Interior dimensions are 16 ft. in length, 8 ft. in width, and 6 ft. in height.

Insulation consists of heavy-density, spun glass material encased in asphaltum paper. Four inches were put in the floor, three in the ceiling, and two in the sidewalls and ends. All seams were caulked for added protection.

Three-quarter-inch plywood covers the floor, while one-quarter-inch plywood was used on the sidewalls and ceiling. The body was finished with two coats of varnish.

Built Bodies Before War

Mr. Miller's organization has been building both refrigerated and non-refrigerated truck bodies since shortly before the last war. Prior to that time, it installed plates and compressors in bodies built by other firms.

The parent company—Refrigeration Sales Corp.—was formed by Mr.

Miller in 1935 when Frigidaire's direct factory sales system was abandoned. He had been an engineer at the Frigidaire regional branch in Detroit.

Then located on Grand River Ave., Refrigeration Sales was operated for more than 10 years as an exclusive distributor of Frigidaire commercial equipment. It still carries both commercial and household franchises.

Just prior to the war, the corporation decided to add truck body building to its other activities. It had constructed about 20 bodies when war broke out and it took on Government contracts to build 50-mm. oak shell boxes and overseas packing.

Separate Division Set Up

As soon as the firm was released from its war contracts, it resumed the building of bodies. To carry on this operation, Refrigeration Sales set up a separate organization called Miller Body Division.

Refrigeration Sales was moved to a new, 10-acre site on Eight Mile Road in November of 1946. Its sales manager, Mr. Fitz-Gerald, is—like Mr. Miller—a former employee of the Frigidaire regional branch. At one time, he was supervisor of the household department.

About 200 refrigerated bodies, plus a few uninsulated ones, have been turned out since the end of the war by the truck division. They range in size from the 6 ft. x 6 ft. x 5 ft.

Magnesium Cuts Body Weight More Than 1 Ton



This 1,860-lb., all-magnesium "reefer" truck body just completed by Miller Body Division of Refrigeration Sales Corp., Detroit, for Page & Cox, Detroit wholesaler of dairy products, is said to weigh more than a ton less than would conventional body of same size. Charles Fitz-Gerald, Miller sales manager, and Harry Moss, Page & Cox sales manager, look inside.

bodies for retail street sales of ice cream to the 16 ft. x 8 ft. x 6 ft. bodies for wholesale ice cream distribution.

Several bodies have been made for house-to-house sales of frozen foods. Now under construction is a 16-ft. stainless steel body which will carry five Kold-Hold plates and be equipped for hook-up to the firm's present ice cream manufacturing equipment.

One of the construction features of Miller bodies is that the bolts that hold refrigeration plates are run through the whole truck wall to give added security. Other features include:

Seasoned oak frameworks, base framings tie-bound by 2 x 3 in. angle braces the full width of bodies, blocks at wheel arches cut from

8/4 in. x 12 to 16 in. solid oak blocks, double pans of heavy, galvanized metal at wheel housings, and exteriors of heavy-gauge stretcher level body metal, aluminum, "Plymetl," or magnesium sheets.

Assembly-Line Planned

According to Mr. Fitz-Gerald, Miller Body now has in mind two projects: to expand the size of the plant and to install in it an assembly-line operation. What the division hopes to do, he said, is to develop a two-line system, with one line handling ice cream and frozen food bodies and the other meat bodies.

He pointed out that an assembly-line set-up under which sizes of bodies would be standardized, would considerably reduce cost to the buyer.

Both
in the same
bracket!

THAWZONE
PATENTED
The PIONEER FLUID DEHYDRANT

... ACTIVE, ALWAYS
CIRCULATING.
DESTROYS MOISTURE
CHEMICALLY, ECON-
OMICALLY, QUICKLY
AND EFFECTIVELY.

TRACE
REFRIGERANT
LEAK DETECTOR

... ITS STABLE AND
VIVID RED COLOR
REVEALS LEAKS ...
INSTANTLY!

HIGHSIDE CHEMICALS CO.
115 VERONA AVE. NEWARK 4, N. J.

HERE'S Double Value FOR DELIVERY NOW!



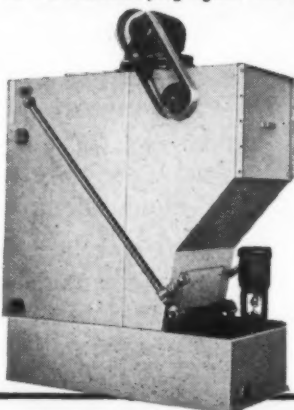
ROGERS SC-1000
10 TON CAPACITY • SELF-CONTAINED AIR CONDITIONING UNIT
A heavy duty unit for medium sized installations, offering the most in comfort, convenience and economy. Note that narrow width of 30 inches permits free passage through standard doorways. Easily installed.
DELIVERED CHARGED WITH FREON 12 REFRIGERANT.

2 ROGERS SYSTEM OF CHEMICAL DEHUMIDIFICATION

WITH TEG

INDEPENDENT CONTROL OF HUMIDITY AND TEMPERATURE

This efficient system is a modern development for the control of humidity in air. Manufactured exclusively by ROGERS, the equipment utilizes triethylene glycol (TEG) as the dehumidifying agent. This system offers the most effective means of controlling moisture in the air both for comfort and industrial processing. Another great advantage of triethylene glycol is its power to destroy air-borne bacteria. Thus in the ROGERS system, moisture content of the air is controlled and the air itself sterilized. Easily installed; simple equipment with no moving parts other than blowers and a simple pump.



R. B. ROGERS COMPANIES INC.

1120 LEGGETT AVE., NEW YORK 59, N. Y.

Manufacturers of Equipment for Air Conditioning, Refrigeration, Heating and Ventilation.

1 ROGERS CONDITIONERS

SELF-CONTAINED AIR CONDITIONING UNITS

Every day, more and more ROGERS Conditioners are proving their superiority in domestic, commercial and industrial installations. ROGERS Conditioners are completely self-contained and self-operating. Quiet, vibrationless, economical operation and trouble-free, 24 hour a day service, make these conditioners the outstanding value in the air conditioning field. Delivered factory perfect charged with FREON 12 refrigerant.

SIMPLE INSTALLATION 1-2-3

ROGERS Conditioners require a minimum of floor space, are easily moved into location without removing door frames or disassembling the conditioner. Installation is quickly performed and inexpensive.

1. CONNECT TO WATER PIPES.
2. CONNECT TO ELECTRICAL CURRENT.
3. THE UNIT IS READY FOR SERVICE.

EASILY TRANSFORMED TO A YEAR ROUND CONDITIONER BY ADDING HEATING COIL AND HUMIDIFIER

ROGERS CONDITIONERS
manufactured in
3-5-7 1/2-10-15-20- and 25 ton capacity units



ROGERS SC-500
5 TON CAPACITY SELF-CONTAINED AIR CONDITIONING UNIT

Unexcelled for use in homes, stores and offices. All automatic controls, internal wiring and charge of Freon 12 refrigerant included and shipped from factory.

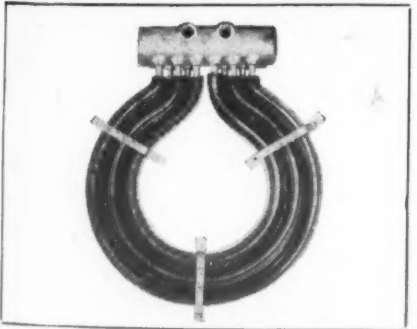
GET THE FACTS
ON THESE
ROGERS FEATURES

ROGERS CONDITIONERS
Automatic Controls
Quiet—Vibrationless
Year Round Conditioning
Rugged Construction
Heavy Duty Condensers
Modern Blower Design
Improved Type Filter Section
Large Area Filter Section

ROGERS SYSTEM OF CHEMICAL DEHUMIDIFICATION
Independent control of temperature and humidity.
Dehumidification without refrigeration.
Eliminates high electrical costs and large compressors.
TEG is non-toxic, non-inflammable. Easily pumped.
Requires low-cost standard valves and piping.
Sterilizes room air.

ROME-CONDENSER

★ Jointless Type ★



Rome Water Cooled Condenser Coils insure trouble-free condensing equipment. Used by leading compressor manufacturers

ROME-TURNEY RADIATOR COMPANY

222 CANAL ST.
ROME, N. Y.

For Silent Operation
and Longer Wear
on REFRIGERATION and
AIR CONDITIONING EQUIPMENT
Use

MANHATTAN V-BELTS

WHIPCORD FHP

They grip without slip.

They flex without overheating.

They are uniformly constructed for longer life.

They deliver the power that makes your equipment DEPENDABLE.

RAYBESTOS-MANHATTAN, Inc.

"Keep Ahead with Manhattan"

MANHATTAN RUBBER DIVISION, PASSAIC, N. J.

Clip to Letterhead and Mail
R. B. ROGERS COMPANIES INC.
1120 LEGGETT AVE., NEW YORK 59, N. Y.

Gentlemen: I am interested in information on Rogers Self-Contained Air Conditioning Units of.....Ton Capacity. ☐
Rogers System of Chemical Dehumidification ☐

NAME.....
FIRM.....
ADDRESS.....

They'll Do It Every Time By Jimmy Hatlo



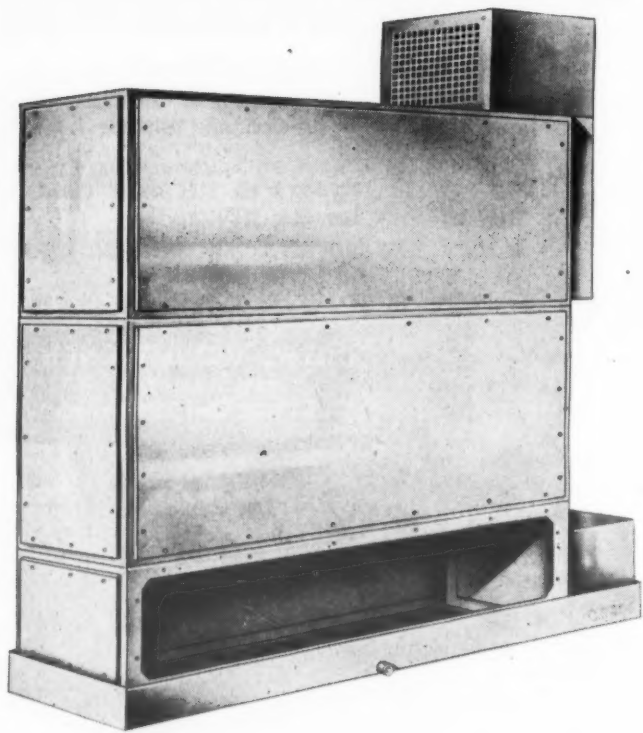
Out With Special Privileges -- Revise the Wagner Act!

WORTHINGTON

Air Conditioning and Refrigeration Report

Worthington Pump & Machinery Corporation, Harrison, New Jersey

SAVE 90% WATER COST



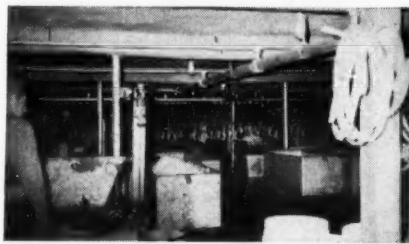
NEW EVAPORATIVE CONDENSERS WITH MANY FEATURES FOR EFFICIENCY

Corrosion Minimized—Greatly improved protective treatment guards against costly corrosion. All parts exposed to moisture are of zinc-coated steel, bonderized and coated with a rubber-base enamel containing special rust-inhibiting powder.

Easy to Clean, Stays Clean Longer—Prime surface, with no fins to clog. Accessibility through panel construction to every part makes cleaning simple and fast.

Water Treatment Device—Available for use where water is unusually hard or where corrosives are present.

Made in five sizes, Worthington Series ECZ Evaporative Condensers combine practicability with heavy-duty durability to join the long list of Worthington "firsts" for efficient, low-cost refrigeration. Worthington Pump and Machinery Corp., Harrison, N. J. Specialists in air conditioning and refrigeration for more than 50 years.

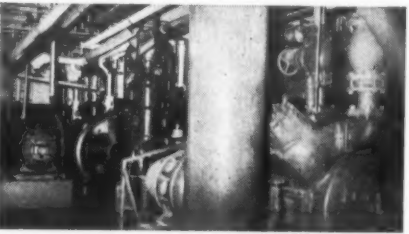


Before It's "Southern Fried" It's "Worthington Refrigerated"

Typical of many up-to-the-minute firms supplying the nation's food, the Jewell Poultry Company of Gainesville, Ga., makes Worthington refrigeration an important factor in its processing. Above is the main processing room, where 100,000 lbs. of chicken are prepared daily.



A part of the Jewell Company's storage space, with cartons of chickens ready for shipment. The workers' heavy clothing and the iced-up pipes indicate the low temperature that must be permanently maintained by Worthington equipment to prevent spoilage.



Refrigeration equipment at the Jewell Company. In the right foreground is a Worthington Freon-12 Condensing Unit. In the left rear are three Worthington Vertical Ammonia Compressors. Worthington units of these types are widely used throughout industry.

Why Integration?

You get refrigeration and air conditioning at its best when all parts of a system "pull together" smoothly. And remember that Worthington, as makers of so many "inner vitals"—compressors, condensers, turbines, pumps, valves, fittings, etc.—is better able to integrate these essential parts into a trouble-free, economical refrigeration or air conditioning system. It's another reason why there's more worth in Worthington. See your nearby Worthington Distributor for details.

WORTHINGTON

Air
Conditioning
and
Refrigeration

AN INTERNATIONAL INSTITUTION • SUBSCRIBERS ALL OVER THE WORLD

Trade Mark
registered
U. S. Patent
Office;
Est. 1926



Copyright
1947,
Business News
Publishing Co.

F. M. COCKRELL, Founder

Published Every Monday by BUSINESS NEWS PUBLISHING CO.
450 W. Fort St., Detroit 26, Mich. Telephone Randolph 0924.

Subscription Rates: U. S. and Possessions, Canada, and all countries in the Pan-American Postal Union: \$4.00 per year; 2 years for \$7.00. All other foreign countries: \$6.00 per year. Single copy price, 20 cents. Ten or more copies, 15 cents each; 50 or more copies, 10 cents each. Send remittance with order.

GEORGE F. TAUBENECK
Editor and Publisher

PHIL B. REDEKER, Editorial Director

C. DALE MERICLE, Associate Editor
JOHN SWEET, Assistant Editor
ROY DENIAL, Assistant Editor
HUGH MAHAR, Assistant Editor
GEORGE HANNING, Assistant Editor
Editorial Assistants: FRANCES WEED,
MARCELLA PRICE, LORRAINE MAJOR,
MARGARET DEAN, MARGARET DITTO.

E. L. HENDERSON, Business Manager
ELIZABETH SMITH, Assistant Bus. Mgr.
ROBERT M. PRICE, Adv. Representative
ALLEN SCHILDHAMMER, Adv. Rep.
YVAUGHN CRYSLER, Subscription Mgr.
WALTER J. SCHULER, Production Mgr.
ROBERT P. NIXON, Credit Manager

Member, Audit Bureau of Circulations. Member, Associated Business Papers.

VOLUME 51, No. 6, SERIAL No. 951, JUNE 9, 1947

Let's Take A Quick Look At The Facts of Business Life In America

MODERN business management can be compared to a Euclidean triangle. In the geometric three corners of that triangle, respectively, are the consumer, the employee, and the investor.

Perfect balance ought to be maintained among this trio in the interests of the most proficient operation of any business project. When this equilibrium is disturbed, a shattering of values and relationships may break this worthy triangle into little bits and pieces.

Take for example, the role played by the consumer. Lacking his purchasing dollars, no business enterprise can exist. His position is an important one, because his expenditures pay the salaries of the business personnel employed by a corporation, and underwrite the purchasing of the needed materials.

It is his privilege to cease buying when he decides that the quality and price of the things he wants are out of line. Failure of the consumer to buy, of course, results in a loss to the investor, and to the employee of the investing firm, as well.

The employee, on the other hand, is more expendable than the consumer. That's a hard fact, but we might as well face it. The consumer may look elsewhere for his purchases if he feels that prices and the quality of the goods he wants aren't right. And the investor, in all probability, has other sources of income—so he can cease investing.

But the employee, when he loses his job, may have considerable difficulty in securing equally satisfactory employment. He certainly has a stake in business cycles and their effect upon "full employment."

It is the employee's privilege to demand the highest wage he can secure without treading upon the toes of the consumer and the investor.

But when he becomes misled to the extent that he demands a wage which boosts the prices of the product he makes 'way beyond the consumer acceptance level, he is seriously disturbing the balance of the triangle.

Probable results are the collapse of the organization which pays him his wages, and the loss of his job.

And when the investor observes that the organization which he has subsidized seems to have an unpromising future, he will, of course, withdraw his investment. He'll sell out at a loss, if need be.

Any time he invests hard-earned money in a business, the investor wants to be very sure that his investment looks promising, and that he can hope for a reasonable return from it. Otherwise, he'll conserve his assets.

So it stands to reason that, in addition to the employee, both the buyer and the investor can upset the apple-cart, just like the labor unions do, for no good reason at all. Consumers, back in 1920, halted the wheels of industry by instituting a "buyers' strike." Serious unemployment resulted.

By the same token, the investor may halt industrial progress. When his investment does not pay off soon enough, he may decide to liquidate the enterprise. Then, as when the buyer strikes, the employee is thrown out of work.

Labor, apparently, forgets these possibilities in its clamoring for higher wages without producing more work to justify those added charges. Like Frankenstein in Mary Shelley's famous story, the union leader has created a monster which may bring about the destruction of its creator. In the end, "more pay for less work" will mean less work and less pay through unemployment.

Penn Outlines Plans at 4-Day Sales Conference

GOSHEN, Ind.—Representatives of Penn Electric Switch Co. here were treated to a four-day sales conference last week during which they heard company executives outline complete product and sales plans, and listened to three speakers from outside the company discuss some general industry problems.

Meetings opened Monday, May 26, and ran through Thursday morning. Besides sessions at the Penn factory here, there were also meetings at the Goshen Hotel and the Elkhart Hotel in Elkhart, Ind.

Heading the outside speakers was W. A. Matheson, executive vice president of Eureka-Williams Corp., who discussed the "Oil Heating and the Automatic Heating Market" at the Monday morning session. Monday night the "Future of Commercial Refrigeration and Air Conditioning" was outlined by George F. Taubeneck, editor and publisher of AIR CONDITIONING & REFRIGERATION NEWS, while at a Tuesday afternoon session R. W. Lewis, manager of the Dealer Division, Fairbanks, Morse & Co., discussed the "Water System Market."

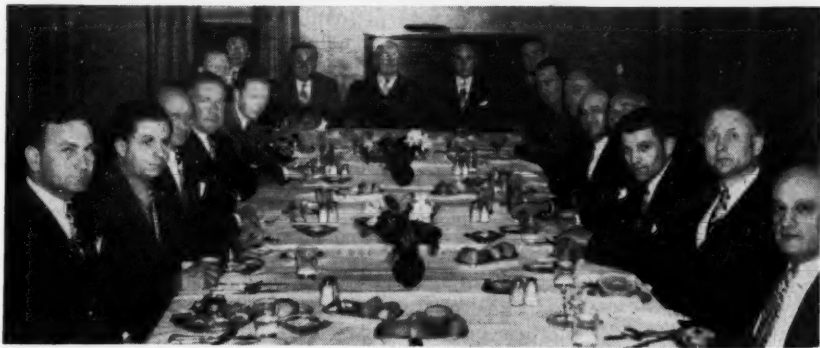
Albert Penn opened the sessions, and among the other Penn officials who participated in the conference were R. H. Luscombe, Ralph Penn, M. E. Henning, K. W. Cash, N. E. Jennison, A. L. Rubel, Paul Schell, R. S. Penn, M. J. Brunk, Jack Rothwell, Paul Penn, C. R. Bowland, B. J. Gill, D. G. Cameron, Harry Deist, Paul Ford, E. A. Price, F. W. Hottenroth, H. F. Guipe, L. B. Wagner, F. Skubitz, and J. R. Nededu.

Orley Appoints Tucker

DETROIT—Charles W. Stillman, executive vice president of Orley Freezers, Inc., recently announced the appointment of John W. Tucker as sales promotion manager.

Mr. Tucker spent 10 years in various divisions of the General Motors Corp. in public relations, and sales. More recently, he engaged in dealer distribution activity for Packard Motor Car Co.

N.Y. Commercial Distributors Affiliate with National Group



George B. Herman (rear center), head of National Commercial Refrigerator Sales Assn., addressed the N. Y. Commercial Refrigerator Distributing Assn. as the latter joined the national group. Attending were Joseph S. Lipack, Bill Reiner, Frank DeMaria, W. O. Crabtree, Jr., Don Hilke, Charles Q. Sherman, Clayton E. Webb, Harry Culbertson, Dave Meister, Jack McGorty, Ben Uslander, Nick Radogna, Everett C. Newton, George Sutphin, Karl Kugust, Barney Berch, and John Poth.

NEW YORK CITY — Affiliation with the National Commercial Refrigerator Sales Association was recently approved unanimously by the Commercial Refrigerator Distributing Association of New York.

At the time of voting, the New York group heard George B. Herman, president of the national association, outline the future plans of his organization.

Mr. Herman stated that the national association intends to have a staff of experts in the field of research to find and develop new uses for refrigerated equipment.

He declared that it will cooperate with health authorities, assist in training and developing commercial refrigerator salesmen, collaborate with manufacturers on standards, etc.



MANUFACTURERS OF
Ice Cream Cabinets
Farm and Home Freezers
Frozen Food Display Cabinets
Soda Fountains and Bob Tails.

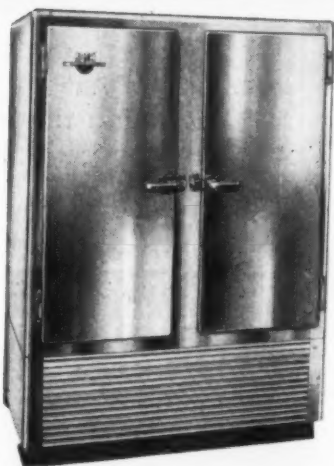


ALL STEEL CONSTRUCTION... AND STAINLESS, TOO!

This new Koch Refrigerator is made of stainless steel inside and out! It is fully insulated in every nook and corner. There are no wooden members to interrupt the solid blanket of heavy insulation. And for the first time in refrigeration history, such a refrigerator is welded solidly into one single unit! Capacity is 25-cu. ft. with 30-sq. ft. of usable shelf area. Shelves are adjustable. Lights are fully automatic.

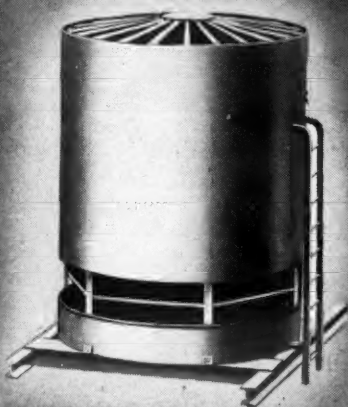
Soon, this new model will be shipped to Koch distributors in every part of the world. In keeping with Koch traditions of quality, performance, and craftsmanship, every one will be a perfect refrigerator.

25
cu. ft.
Stainless Steel
Reach-in Refrigerator



KOCH Refrigerators
North Kansas City 16, Mo. **Since 1883**

ONLY COEY COOLING TOWERS
BRING YOU THE HIGH EFFICIENCY OF



FLOATING FILM

Roger's "COEY" Floating Film Cooling Towers apply a cooling principle widely endorsed by engineers and contractors; bring you high efficiency in cooling tower units.

HIGH CAPACITY — LOW WEIGHT
SILENT OPERATION
CONSERVES WATER
LITTLE SPRAY LOSS
ALL-METAL FIREPROOF CONSTRUCTION
EASY TO MAINTAIN

(No spray nozzles to clog;
no baffles to replace)

Available in wide range of sizes. Models 20-R and 50-R (capacity range 30 to 175 tons) available for immediate shipment.

For full information including technical description, ratings, list of prominent users, write for Bulletin CT-A.

A PRODUCT OF
R. B. ROGERS COMPANIES, INC.

1120 Leggett Avenue
New York 59, N. Y.

Exclusive Manufacturers of
the Rogers T-Glycol System
of Chemical Dehumidification

* Such as
HOTEL COMMODORE, N. Y.
E. F. DREW & CO., INC.

The Motor Story

There'll Soon Be Plenty of 'Em, Jervis Says; Tells of Latest Improvements, Standardization

By George M. Hanning

DETROIT — Noting that the monthly production of fractional horsepower motors has been well over 2,000,000 units for the past several months, J. S. Jervis, district sales manager here for the Century Electric Co. of St. Louis, Mo., told members of the Refrigeration Contractors Association of Detroit recently that "in a very few months, the motor salesman will be knocking at your door extolling the advantages of his motor and actively soliciting your business."

"In a very short time, I personally think we will have integral horsepower motors running out of our ears," he added.

Mr. Jervis, in his talk, discussed briefly the present standardization program for fractional horsepower motors being carried out by the National Electrical Manufacturers Association.

He outlined recent improvements made in electric motors, described different types of refrigeration motors, and gave pointers on their installation and service.

The standardization of fractional horsepower motors, he pointed out, will be of real benefit to refrigeration contractors.

"This standardization will equalize or standardize the external dimensions of all fractional horsepower motors so that our 1/2-hp. motor will have the same dimensions as the same rating and speed of a motor of another manufacturer."

"This will simplify the service problem so that it will not be necessary to carry several different makes of motors in your service trucks to make sure that one of them will fit."

"While the standardization of frame sizes is important, to me the most important phase of this program is the standardization of torques, maximum horsepower, starting current limitations, etc."

"With this standardization all parties interested will know the actual full load current of a specific motor. Architects will be able to design office buildings, hotels, etc., with suitable wiring to take care of room coolers."

He noted that buildings constructed several years ago are not equipped to carry room cooler loads. This, he said, presents a problem to both building owners and power companies.

Smaller But Better

Mr. Jarvis declared that over the past several years, motor manufacturers have reduced the size and

weight of motors while at the same time improving the efficiency and general characteristics.

"All of us have the mistaken impression that the older motors, which were brutal in size, had the guts that are not now prevalent in newer motors," he asserted.

"This is not a fact, as the newer motors, horsepower for horsepower, will carry larger loads with less heating up and characteristics such as starting torques, pull up torques, etc., have been greatly improved."

He gave the following comparison between weight, price, and starting torque of 1/2 and 1-hp. motors of 30 years ago and those of today:

	1/2 hp.		1 hp.	
	Old	New	Old	New
Weight in lbs.	120	50	152	65
Printed price in \$	100	38	131	68
Starting torque in %	250	450	250	450

"Enameled copper wire has enabled us to reduce slot sizes," he declared, "thereby utilizing more of the available iron in the stator and rotor and cutting down iron loss."

"Improved ventilation has also enabled us to reduce total weights, reduce air gaps, and further improve performance. This improved ventilating was accomplished without sacrificing any of the protective features of motors. Present motors are considered drip proof with only small

openings in the bottom of end brackets to provide ample ventilating openings.

"Insulating materials and binders are being used now that do not absorb moisture and are not affected by seasonal changes in temperature. Glass insulation may further improve this feature, but as yet it is commercially being used for only high temperature jobs."

Mr. Jervis divided the motors used on refrigeration equipment into three classes: single phase, three phase, and direct current. The single phase group, he noted, is further divided into split phase, capacitor, and repulsion induction.

"Split phase motors were designed primarily for light starting loads and up to 1/2 hp.," he explained.

Not Satisfactory

"Because of their inherent characteristics they are not satisfactory for refrigerating machines, but rather for fans, blowers, and other machinery easy to start. The starting currents of such motors are correspondingly high and the starting torques low."

"Because of the high starting currents, they are frowned on by power companies for such loads as must start several times per day, but are allowed on such duties as washing and ironing machines or similar machines that do not require automatic starting and are used only a few times each week."

"In this connection I might add that power companies have much to say regarding the design and limitations of motors, and rightfully so, since it is up to them to furnish the proper power for the equipment that we sell."

"They are particularly interested in the starting and running currents of motors as well as power factors and all have certain rules regarding limitations that we must live up to."

"Capacitor motors are designed for hard to start loads and the starting efficiency (starting torque per ampere) is very good."

"Basically it is a split phase motor with a condenser in series with the

starting windings. As in the split phase motor, a centrifugal switch operating at a predetermined speed cuts out both the starting winding and condenser allowing the motor to operate as a squirrel cage induction motor."

"This motor, because of its high starting torque and low starting current, is recommended for compressor duty. The starting torque of a fractional horsepower motor of this type would be approximately 450% with a starting current of approximately 350% in comparison with a starting torque of 230% and starting current of 800% with the same size split phase motor."

"Capacitor motors can be furnished in . . . capacitor start and capacitor run in some of the larger sizes. In these motors condensers are used in both starting and running to secure . . . extra low starting currents and especially quiet motors."

"A part of the capacity effect is cut out by the centrifugal switch with a part remaining in the circuits."

"Permanent capacitor motors are for very special applications requiring very low starting torque requirements. These are suitable for driving shaft mounted fans requiring only 30 to 50% of full load torques."

"Variable speeds can be secured with such motors by varying the voltage through external resistance. The horsepower of such motors is usually limited to 1/2 hp."

"The hermetically sealed motor . . . is a capacitor start motor that differs from the run of the mine capacitor motor in that it does not utilize a centrifugal operated switch."

"Instead of the centrifugal switch, nearly all manufacturers use a current or voltage relay. This relay is in series with the starting and condenser winding and operates to cut out this circuit at a predetermined amperage or voltage. Such relays are usually equipped with overload devices for protection of the motors."

Mr. Jervis explained that the manufacturers of hermetically sealed motors take a great deal of care to chemically clean the motor and parts

(Concluded on next page)

TESTING PILOTS at "18,000 ft" and 50 below

in the Cornell Aeronautical Laboratory Altitude Chamber

Allen-Bradley Control used throughout

Pilot reactions at high altitudes are easily determined in this modern altitude chamber at the Cornell Aeronautical Laboratory. In this chamber, the low air pressures and low temperatures encountered at high altitudes can be perfectly simulated by pulling a vacuum and by circulating refrigerated air. Motors performing these functions are operated by Allen-Bradley controls.

Allen-Bradley motor starters are so popular in refrigeration and air-conditioning installations because they are so dependable and do not require regular servicing attention. They have only one moving part—there are no pins, pivots, hinges, or bearings to cause trouble, and no flexible conductors to break. Their double break, silver alloy contacts never need maintenance, for any oxides that may form on the contacts are good electrical conductors. Then, too, their extremely simple design automatically eliminates trouble.

Write for information, Allen-Bradley Co., 1313 S. First St., Milwaukee 4, Wis.

Above—Engineers in winter flying equipment recording test data in Cornell Aeronautical Laboratory Altitude Chamber.

Right—View of the equipment room. Note Allen-Bradley motor starters in the background.

Right—Bulletin 709 size 2 across-the-line solenoid starter with cover removed. The white interior reflects light in dark locations for easy installation.

ALLEN-BRADLEY
SOLENOID MOTOR CONTROL
QUALITY

Above—Control panel in the altitude chamber showing Allen-Bradley motor starters and relays.



SUPERIOR
Quality Refrigeration
PRODUCTS
for
Trouble-Free
Performance

Designed and Engineered for Maximum Performance . .

In all refrigeration and air-conditioning systems, the SUPERIOR line includes the famous Diaphragm Packless Line valves; globe, charging, purging or drain valves; hand expansion valves; pressure cup (wing cap) globe valves; packed line, angle, compressor and cylinder valves; check valves; liquid indicators and sight glasses; quick couplers; gauge manifolds; economizers (heat-exchangers) and manifolds; dehydrators and filters; rapid-chargers (refrigerant transfer systems); charging hose; and SAE flare fittings, including the new STA-TITE flare nuts which cannot creep or work loose.

If you haven't a copy of SUPERIOR Catalog R-2, request one today

NO. 135

SUPERIOR VALVE & FITTINGS COMPANY
PITTSBURGH 26, PENNSYLVANIA
OFFICES IN PRINCIPAL CITIES • STOCKS CHICAGO (6) • LOS ANGELES (15) • JOBBERS EVERYWHERE

What To Do When Installing New Motor Or Trouble Shooting One Is Outlined

(Concluded from preceding page)
so that they will not contain any foreign matter that would chemically affect the refrigerant.

Repulsion induction motors, he continued, have "all the virtues of the capacitor start motor with a few added virtues in the way of additional starting torque and somewhat lower starting currents."

"The most commonly used three phase motors are the squirrel cage type which is the simplest of all types of motors. Standard normal torque motors up to and including 3 hp. have sufficient torques to handle compressor types of loads, but above the 3-hp. size the high torque type is recommended.

"At this time there are a large number of two speed, three phase motors used on refrigeration machines such as ice cream hardening rooms where compressors are driven at high speeds to quickly harden the ice cream and then reduced to low speed to maintain the freezing temperatures.

"This change from high speed to low speed can be very easily controlled by magnetic starters operated through thermostats and such combinations are becoming very popular with refrigeration companies.

"Since squirrel cage motors have only one moving part they do not present a service problem usually other than mechanical."

Mr. Jervis noted that about the only type of direct current motor used for refrigeration is the standard compound wound motor. Its characteristics, he stated, "are well adapted to this type of load and it can be said of direct current compound wound motors that they will carry and bring up to speed any load they can start."

Good Installation Important

Through proper installations and correcting minor defects, refrigeration contractors can do much to simplify service problems for the manufacturer, he indicated.

"It must be remembered," he said, "that motors, as well as condensing coils must breathe and the maximum output can only be guaranteed with normal temperatures present and normal air changes.

"Therefore, it is important to pick out a location that is readily accessible for service, free from excessive dust and dirt and one that has somewhat normal temperatures present.

"Next, . . . it must be remembered that the manufacturer has had very little chance to run the machinery under load and all bearings are somewhat tight. If new machinery is operated very carefully for the first few hours, chances are it will continue to operate satisfactorily for many years, or until some component part breaks down.

"Motors must be carefully oiled usually with No. 20 grade automobile oil, and oil plugs in bearing housing

checked to see that they are tight.

"Belt tension must be checked as tight belts have ruined many a motor. In setting up a machine the belts should be set up so that there is no slippage when operating at full speed, full load.

"This does not mean that there must not be a belt squeak at the start. We must remember that refrigeration motors will start up several times full load. To eliminate altogether the belt squeak at the start might indicate too tight a belt.

"Power circuits, fuses, and overload devices should be checked to see that proper voltage is maintained at the motor terminals and the motors are protected for overloads. Facilities are not always available to check voltages, but should motors show sluggishness with all other equipment correct, there could be a possibility of low voltage.

"In all installations stator frames should be well grounded. This, in addition to being a protection for the operator, protects the motor insulation from damage by static discharges.

Check These Before Starting

"Some points to remember before starting the motor for the first time are:

"1. Make certain that the line voltage agrees with the nameplate marking of the motor. Most motors are wound interchangeable 115/230 or 220/440 volts. So see that the motor is connected for the voltage on which it is to operate.

"2. Check amperage rating of line fuses remembering that with most single phase motors, fuses rated at 25% above the full load rating is sufficient.

"3. Turn the driven equipment by hand to see that it does not bind.

"4. Make sure that bearings are properly lubricated and oil plugs tight.

"5. See that motors are properly bolted down and ground connections made.

"6. Run motor idle for short time to see that bearings are getting lubrication and rotation is correct.

"7. Check belt tension allowing somewhat loose belt at first so that bearings have a chance of running in."

Advising the contractors to eliminate simple troubles first before turning to complex items when trouble shooting inoperative motors, Mr. Jervis outlined a few simple tests for common failings.

A test lamp used at the motor terminals will indicate blown fuses, he declared. "Built in overloaded devices cannot be detected with a test lamp at the motor terminals since they are connected inside the motor.

"These can be inspected by removing the plate to determine if they are open, but should not be tampered with. Rather they should be re-

moved and taken to a service shop for inspection and test.

"Loose and tight bearings can usually be tested by hand. If tight and the addition of oil does not loosen them up, then the shafts are probably scored and this must be corrected before the motor will operate satisfactorily.

"Loose bearings that cannot be determined by hand movement usually cause a growling sound when starting.

"Motor manufacturers have practically eliminated end play in all motors. Too much end play with a crooked belt will cause a bump or knock and this type of noise is usually disagreeable.

"Where too much end play does not otherwise affect three phase motors, it does affect single phase motors. It might interfere with the operation of the cutouts or centrifugal switch. End play can be easily corrected by the addition of thrust washers without removing the motor from the job.

"It is very hard to determine and correct other than a minor defect when the motor is on the job. It has always been our practice to recommend bringing the motor to the service shop to properly ascertain what is wrong with an inoperative motor."

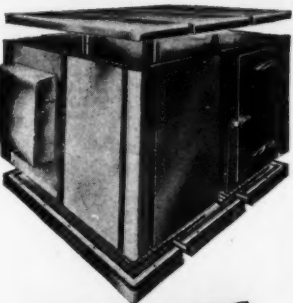
RECO-FAB

New Model

ALUMINUM

EXTERIOR AND INTERIOR!

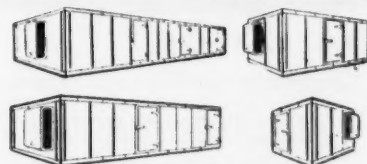
■ LIGHT IN WEIGHT ■ SIMPLE TO ERECT, MOVE OR ENLARGE
FREEZE COOLERS FOR ZERO OR MEDIUM TEMPERATURES



PRECISION MADE! SECTIONAL CONSTRUCTION!

Available with **RECO-PAK** SELF CONTAINED REFRIGERATION SYSTEM EQUIPPED WITH RECO-MATIC AUTOMATIC DEFROST • SIMPLY CONNECT TO ELECTRIC SERVICE LINE

SIZES FOR Every NEED



- ★ Dairy
- ★ Produce
- ★ Frozen Food
- ★ Meat
- ★ Industrial Storage

Call Rittenhouse 6-5287 Sizes from 195 Cu. Ft. to 2200 Cu. Ft.

REFRIGERATION ENGINEERING CORP.
2024-26 MARKET STREET, PHILADELPHIA 3, PA.



IS THE NATIONAL VERDICT
of users whose equipment carries these names!



Fleetwood-Airflow

WILKES-BARRE, PA.



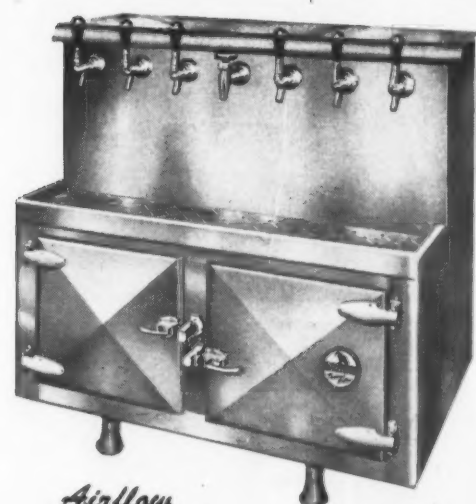
Superior design, materials and workmanship have won for these products their leading place in refrigeration.

SOME CHOICE TERRITORIES AVAILABLE

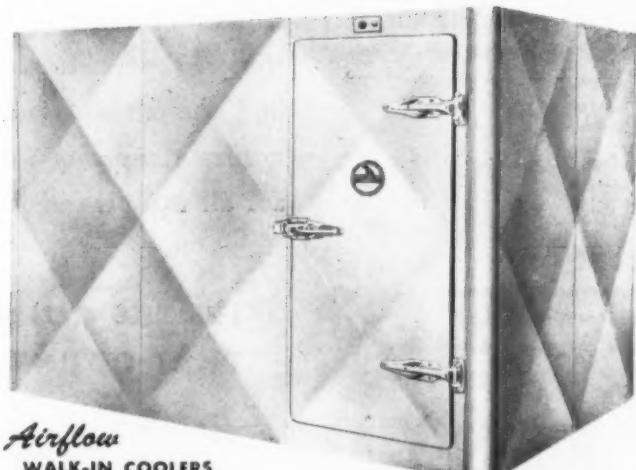
- Fleetwood • Double Duty Display Cases**
• Top Display Cases
• Fish and Poultry Cases



Fleetwood
REACH-IN REFRIGERATORS



Airflow
DISPENSERS



Airflow
WALK-IN COOLERS

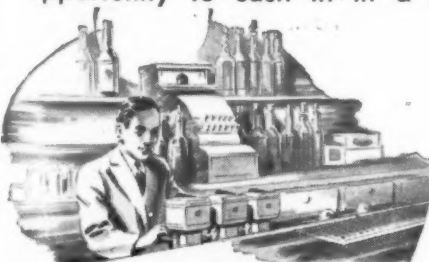


Fleetwood
CONDENSING UNITS
Equipped With General Electric Bodies

CUSTOM-BUILT EQUIPMENT THAT SETS THE NATION'S STANDARDS

DISTRIBUTORS WANTED!

If you can handle sales, installation, and service for Multiplex Fixtures for Bars and Taverns—here is your opportunity to cash in in a big way



by distributing

**THE NEW
MULTIPLEX
BAR DISPENSER**

Revolutionizing Tavern and Bar Service

- ✓ IT ELIMINATES BOTTLES
- ✓ IT MANUFACTURES FRESH CARBONATED DRINKS (Seltzer, Cola, Lemon, Ginger Ale) AS EASY AS DRAWING A GLASS OF BEER
- ✓ IT SPEEDS SERVICE 100% AND INCREASES THE PROFITS OF BARS AND TAVERNS TREMENDOUSLY.

WRITE US FOR FREE ILLUSTRATED BULLETIN

MULTIPLEX FAUCET COMPANY

MANUFACTURERS OF SOFT DRINK DISPENSERS

4319-25 Duncan Ave. (Division 12) St. Louis, Mo.

Multiplex—The Original Mixing Faucet, model of simplicity and durability for over 40 years.



ICE CREAM CABINETS

2-4-6-8-12 hole

Complete with or without units

- ALL STEEL CONSTRUCTION
- STAINLESS STEEL TOP with ROUNDED EDGES
- HARD RUBBER FLIP-FLOP COVERS
- WHITE ENAMEL FINISH

DISTRIBUTORSHIPS AVAILABLE • EXPORT INQUIRIES INVITED

ICE CREAM MANUFACTURERS SUPPLIED

Manufactured by

Frostedaire
CORP.

Division of WEST SIDE IRON WORKS
801 GREENWICH ST., NEW YORK 14, N.Y. • CHelsea 3-4900

IMMEDIATE DELIVERY!

Hospital Illustrates All-Too-Common Use of Overloaded, Obsolete Refrigeration System

Editor's Note: The following paper by Mr. Manion constitutes one of the most comprehensive studies in recent years of the use of refrigeration in hospitals.

By J. F. Manion, Carrier Corp.*

One of the hospitals which I have recently had occasion to visit typifies many of the refrigeration problems which are common today, not only in institutions but also in restaurants catering to the general public as well as with all users of refrigeration equipment.

Most refrigeration systems are worn out, inadequate, or obsolete; especially since it has been impossible to make many replacements since before the war. Even now production difficulties are such that, on many items, shipments against orders placed today would have to be made many months in the future.

In this particular hospital, the kitchen cooks for approximately 800 people. Three small walk-in coolers are used for storage of meats, vegetables, dairy products, and other perishables in bulk; and, in addition, there are several reach-in type refrigerators in the main kitchen and in the diet kitchen.

Cooling coils in these coolers are of the bare pipe type on the sidewalls, except in the walk-in coolers—which have been modernized to the extent

of replacing the bare pipe coils with finned coils, which are merely pipe coils with fins to increase their heat transfer surface.

In the cafeteria are some under-the-counter type refrigerators for storage of salads and cold desserts. They have an ice cream freezer which is not used, together with an ice cream cabinet which provides the only space available for storage of frozen foods. This particular hospital has made another important step toward modernization by replacing their old bulk ice making system with four self-contained machines that make ice in ribbon form.

One central plant refrigeration machine, using ammonia as a refrigerant, powers practically the whole system and is located in the food preparation space so that any unpleasant odors from the system are a source of annoyance.

Space Should Be Tripled

The management of this hospital realizes the shortcomings of the refrigeration system, and will revamp it at an early date. As is true in many hospitals, about three times more space should be available than they actually have. Of course it was impossible to anticipate the expansion that would take place and the increased need for refrigeration, but there is a great object lesson for any one planning for new buildings.

A number of variables make it impossible to set up a formula that will answer the problem of how much refrigerated space is needed per 100 or per 1,000 meals served; but a careful study of certain governing factors by the hospital management together with the architect and refrigeration engineer will go a long way towards producing plans for an adequate system. The factors that should be considered are:

- (1) Number of meals served.
- (2) Frequency of food delivery.
- (3) Amount of quantity buying.
- (4) Special consideration and needs of the hospital.
- (5) Possibility of future expansion.

Planning Can Cut Losses

Inefficiency and food losses are expensive, so careful planning cannot be stressed too much.

The refrigeration equipment, itself, in this hospital falls far short of modern performance. The refrigeration machine is handicapped by serving several refrigerators. It was a good machine in its day, and is still trying hard; but cannot efficiently satisfy a number of diversified and fluctuating demands at the same time.

There is a definite trend toward the use of several smaller compressors (located as near as practical to the fixtures they serve) instead of one central plant. The first cost is usually higher, so the idea is hard to sell; but the result, generally speaking, is that the total motor horsepower required is less so that

the operating cost is lower. Furthermore, food quality will be higher and losses lower.

In particular, low temperature fixtures—such as ice cream cabinets and food freezers—should not be connected to the same machine as higher temperature refrigerators. Machinery for low temperature work is of necessity larger and more expensive and, when connected to high temperature loads also, has to be oversized so it can handle the whole load at the lowest temperature required.

In general, the whole refrigeration industry is in agreement that it is better practice to use a number of smaller refrigeration machines.

What Perishables Require

Low temperature alone is not capable of producing proper conditions for the preservation of perishable foods. A well designed refrigeration system for perishable foods must produce

(1) a temperature that is low enough to prevent spoilage, but not so low as to cause undesirable effects and high operating cost;

(2) air circulation sufficient to provide even temperature and to prevent transfer of odors from one food to another, but not so high as to cause discoloration of product stored; and

(3) humidity, or moisture content in the air, high enough to prevent dehydration, but not so high as to cause sliming or surface spoilage due to bacterial action.

Wall Coils Inadequate

The cooling coils in a great many institutions, such as the one mentioned previously, are pipe coils wound around the sidewalls of coolers, or overhead in some instances; or finned coils which, as explained before, are merely pipe coils with fins on them. While these coils are perfectly satisfactory for certain applications, they cannot produce the three conditions required for good preservation of perishable foods because they depend for air circulation upon the fact that the cold air coming off the coils is heavy and will fall to the floor, causing warm air to rise.

The lower the temperature of such coils, the colder and heavier will be the air and the faster the air circulation in the cooler. If they are run at a low enough temperature to circulate the air fast enough, they will condense so much moisture out of the air that low humidity and dehydration result.

Air Circulation Important

On the other hand, if the coil is run at a higher temperature, and increased in size so that the room temperature is still satisfactory, there will be insufficient air motion to cause even temperatures and to prevent odor transfer.

The answer is provided by the cold diffuser, or cooling coil with a fan to provide air circulation. Since air circulation in just the right amount is taken care of by the fan, the cold diffuser can be run at the right temperature to produce the proper temperature.

(Continued on next page)

The Cool Master
An efficient, cooling unit for walk-in refrigerators and other space cooling.

The Curvette
A new cooling unit of compact, distinctive design, for reach-in refrigerators, cabinets and counters.

Radial Cooling Units
The original radial cooling unit for walk-in refrigerators.

Thermobank Automatic Defrosting
The only completely automatic low temperature defrosting system requiring no attention, no water sprays, no brine sprays and no electric heaters.

The Panel Unit Cooler
A highly efficient, compact, convection cooling unit for reach-in refrigerators—made in a complete line of sizes and capacities.

count upon

KRAMER

for **ADVANCED ENGINEERING**

Our business is that of manufacturing heat exchange equipment for the refrigeration industry.

Our aim is to contribute to the advancement of the art.

It is with some satisfaction that we review our latest achievements, including:

the creation of a complete line of forced convection cooling units; the development of low temperature de-frosting equipment culminating in the invention of the Thermobank; and the maintenance of accurate capacity ratings for all equipment.

"IT'S THE COILS THAT COUNT"

KRAMER TRENTON CO.

TRENTON 5, NEW JERSEY

Filtrine
HIGH EFFICIENCY

WATER COOLERS

STAINLESS STEEL Cafeteria Cabinet Type Water Coolers . . . all sizes.
INDUSTRIAL MODELS . . . for temperatures as low as 34 degrees.
Delivery Now

FILTRINE MANUFACTURING CO.
53 Lexington Ave. Brooklyn 5, N. Y.
Manufacturers of Coolers & Filters for over 40 Years

Importance of Proper Facilities for Frozen Storage Stressed In Manion Talk

(Continued from preceding page)
perature and humidity so that all three conditions can be met. The cold diffuser, when properly applied, also prevents sweating or moisture condensation on the ceiling and walls of coolers—which is an ailment common to pipe coil installations.

The cold diffuser is recommended for most applications, both for new installations and for replacement of old systems. It is usually lower in cost than other types of coils, and occupies less space. Many institutions now having coolers with pipes wound around the walls could have much better refrigeration by replacing them with cold diffusers and, at the same time, increase their storage facilities by the amount of the valuable space occupied by the pipe coils. The cold diffuser has another advantage in that it lowers the operating cost of the refrigeration machine.

Horizontal Plates Effective

Refrigerated plates have a place in modern refrigeration practice. Their limitations are much the same as those of pipe coils where humidity and air circulation are important, but they can be used to advantage in food freezer cabinets, salad pans, and other applications. When used for freezing, they are most effective if arranged horizontally so that the product being frozen can be placed in direct contact with them.

The modern trend in refrigerators of the reach-in or front door opening type is toward metal constructions. The finish may be either paint or, in the instance of Monel metal and stainless steel, no paint is necessary. The latter two metals have been satisfactory, although high in cost. Because of ease of cleaning, metal refrigerators have been welcomed by all who have had experience with wood rotting and becoming unsanitary unless given a lot of attention.

Prefab Walk-Ins Are Mobile

You are all familiar with walk-in coolers of the built-in or permanent type. Prefabricated walk-in coolers offer advantages over the built-in type in certain instances. At about the same cost, they are portable and can readily be moved from one location to another if desired. They also offer flexibility in that they are built in sections and can be added to as necessary. The Armed Services bought thousands of prefabricated coolers during the war and shipped them all over the world.

Refrigerators and coolers for storage temperatures above 32° should have 3 to 4 ins. of insulation. It is important that the recommendations of your architect and refrigeration engineer be followed on the type, thickness, and application of insulation.

Since the popularity of frozen foods is and has been skyrocketing for some time, a discussion of frozen food storage certainly seems to be in order. It is common knowledge that all food serving establishments will be using them to an ever increasing degree, particularly in view of the fact that large packers, distributors, and independent research organizations are studying quality control in an effort to offer products of standardized high quality.

Frozen Foods Reduce Waste

Better and more uniform dishes can be served, usually at a definite economic saving since, during most months of the year, frozen foods are as cheap if not cheaper than fresh products, and spoilage and waste are practically eliminated.

Reduced time of preparation is also a very important factor, what with help being such a problem today.

Many dieticians report that they would like to use greater quantities of frozen foods, but cannot because of a lack of low temperature refrigeration space.

The quality of a perfect frozen product may be seriously impaired if it is stored at too high a temperature, or if stored at a temperature which fluctuates through more than a few degrees. It is generally agreed that a temperature of 0° or slightly less is desirable for storage of frozen foods, although up to 10° is permissible for short storage of products not frozen in syrup or any other solution having a low freezing point.

Thicker Insulation

Equipment for 0° storage may vary in size from a small storage cabinet to large walk-in coolers capable of holding a carload or more of food. The comments on construction of coolers for higher temperatures apply here also, but the insulation must be thicker and greater care must be used in its installation. If not properly installed with a seal provided against moisture infiltration, the insulation may become very inefficient due to becoming saturated with ice and frost.

The walk-in type of cooler for frozen foods should have 8 in. of insulation and, again, may be either the built-in or prefabricated type. More economical operation will result if entrance to a 0° cooler is made through a refrigerated ante-room, or through another refrigerated room.

Careful Door Construction

If the door opens from 0° space directly into ordinary room temperature, it must be of special construction to prevent icing to the extent that it cannot be opened or closed. It should be remembered that a cooler to store hundreds or thousands of dollars worth of frozen foods is much more difficult to build than a normal 40° refrigerator, and that it is not a job for an ordinary carpenter.

The smaller cabinet type self-contained cooler fills the bill for smaller institutions, and also for larger ones who wish to decentralize their cold storage equipment into smaller units placed at more convenient locations, such as diet kitchens. In selecting the size and type of cooler to be used, it is very important that the frequency of food deliveries be given consideration.

There are two general types of cabinets for frozen food storage—the chest or dive-in type, and the upright type with front opening doors, like the domestic and commercial reach-in refrigerators. The chest type is more common because it is adaptable to the same product facilities used to manufacture ice cream cabinets and milk coolers. Proponents of the chest type maintain that it is more efficient because cold air cannot spill out when the doors are open.

Cites Laboratory Tests

Our own factory laboratory and field tests seem to prove that the upright type, with front opening doors, is more economical than the chest type. With each shelf being a refrigerated plate, even temperatures are maintained throughout and there is no problem due to "warm spots" which are encountered near the top and in the center of the chest type. The amount of cold air lost due to door openings is negligible, and is far outweighed by the convenient features.

To give you an idea of storage requirements for frozen foods, the dietician of a hospital serving 1,500 meals per day recently told me that a 30 cu. ft. refrigerator provides adequate storage for the frozen foods

(Concluded on next page)

For Liquid Cooling....
use

HEAT-X

CAST ALUMINUM LIQUID COOLERS

Stainless Steel Multi-Circuit Cooler for Beer and Beverage applications.

Other models available with Single or Multi-Circuits for Dispensers — Soda Fountains — Water Coolers.

See your jobber for literature. Ask to see the Complete Heat-X Line.

THE HEAT-X-CHANGER CO., INC.

415 LEXINGTON AVENUE, NEW YORK 17, N. Y. BREWSTER, N. Y.

THE MASTER SERVICE MANUALS - - -

— — — and other books of the Refrigeration Library are depended upon as textbooks in trade schools from coast to coast.
BUSINESS NEWS PUBLISHING CO., DETROIT

Sound From Every Angle!

CURTIS

Refrigeration and Air Conditioning Equipment

The soundness of Curtis equipment is apparent in every detail of design, engineering, materials and construction. Its record of high efficiency and low operating and service expense has won friends with dealers and users everywhere.

Curtis features include:

1. Timken Bearings that assure lower power consumption.
2. Extra large condensers.
3. Self-oiling — positive lubrication.
4. Slow speeds — longer life.
5. Quiet operation.

You can sell Curtis with confidence — for almost any refrigeration or air conditioning requirements.



Curtis Packaged Air Conditioners—3, 5, 7½, 10, 15 tons.

93 Years of Successful Manufacturing

CURTIS REFRIGERATING MACHINE DIVISION

of Curtis Manufacturing Company
1912 Kienlen Avenue St. Louis 20, Missouri



SEND FOR YOUR COPY OF TEMPCO'S NEW CATALOG!

- A first edition! 140 Pages of Quality Values! Parts—Supplies—Equipment for Refrigeration, Air Conditioning, Heating and Appliances.

NAME.....

ADDRESS.....

CITY..... STATE.....

TEMPCO SUPPLY COMPANY
1111 W. Jackson Blvd. Chicago, Illinois

SNO-BREZE

COOLERS HAVE EXTRA SALES-PULLING FEATURES!



Can be installed on roof or on outer wall. A complete range of sizes — 2,500 to 20,000 CFM. Immediate deliveries. Write for free catalog.

Palmer coolers are backed by over 30 years of engineering research.

Palmer
Manufacturing Corp.
Phoenix, Arizona

'Freon-12', Higher Speed Condensing Unit Provide More Efficient Refrigeration

(Concluded from preceding page)

they serve. However, they use only frozen vegetables, and fruits for pies. It is my opinion that, with increased use of frozen foods, she will find that several times that amount of space will be required. Incidentally, the refrigerator referred to is the upright type and has proven to be very satisfactory. This refrigerator was put into use in July, and it was not necessary to defrost it until November—the arguments of chest manufacturers to the contrary.

On the other hand, the manager of our own company cafeteria uses two 30 cu. ft. refrigerators and maintains that they do not provide anywhere near the amount of space he would like to have to serve 1,600 meals per day. He has become sold to the extent that he uses frozen poultry altogether, since it frees his butcher from the task of cleaning and eviscerating.

He makes pie crust, for instance, in quantities, then freezes and stores it for use as needed. He also freezes and stores leftovers until he has accumulated a sufficient supply to use them economically.

Saves \$80 Weekly

His experience has proved that he can save \$80 per week by buying frozen fruits and vegetables, principally due to the fact that personnel is no longer needed for such tasks as peeling apples, peaches, and pineapples, and washing and trimming

vegetables. He maintains that, if he could have as much freezing and frozen storage space as he would like, he could reduce the operating cost of his cafeteria by several thousand.

So there are two different ideas of the amount of space needed for frozen food storage. It is interesting to note that an important determining factor is the extent to which frozen foods are used, and that any plans made should allow plenty of room for future expansion.

Freezing Different Problem

Thus far the discussion of frozen food refrigeration has been confined to storage only. Freezing presents an altogether different problem, and undoubtedly should be mentioned in passing.

Many institutions will want to freeze both fresh and precooled products. Capacity for preparing such foods as stews, chicken-a-la-king, baked goods, and numerous other food products is frequently in excess of day-to-day needs, so that freezing becomes an attractive proposition not only from the standpoint of saving labor, but also because it makes these products immediately available over a greater period of time.

Storage for any length of time at above freezing temperatures is unsatisfactory for a multitude of reasons, including staling, absorption of odors from other foods, and over-fermentation in the case of doughs

and baked goods.

Freezing materially increases the refrigeration load over that required for frozen storage only. In this connection it should be mentioned that most so-called "self-contained freezers" built for home and commercial use are designed to freeze only small quantities of food per day—on the order of 100 pounds per day or less—frequently considerably less.

Imposing a greater freezing load on a freezer than it is designed to handle will not only overload it, but will result in a low quality product and endanger products being stored while the freezing takes place.

Obtain Expert Advice

Freezing of foods is too lengthy a subject to discuss here, so I should like to leave it with the suggestion that, if you contemplate setting up a freezing operation, you consult not only a refrigeration engineer, as you would for frozen storage only, but also a packaging engineer and a food technologist, since the details are sufficiently involved to require expert advice.

I should like to leave one thought on the subject of ice making. It is that you give serious thought to the idea of buying ice rather than to try to make it in the messy, clumsy, and in many respects unsatisfactory old-fashioned way. The handling of cans, stirring to eliminate air and make the ice clear, crushing, maintenance of equipment, and space required are objections that are causing many institutions to do away with their bulk ice making machinery.

Improved Ice-Makers Ready

Ice can be bought crushed or cubed so that it is only necessary to provide storage space and, in many instances, it comes at a lower cost and higher quality than if made on the premises. Another alternative worth consideration is that a few manufacturers now have self-contained machines for making ice in ribbons, cubes, or equivalent form in quantities as needed.

It might be well to consider this type of ice maker also as a replacement for the old method of making it in bulk and then crushing or cubing it for its various uses. The hospital being used as an example has done this, and is well pleased with the performance of the self-contained machines.

Most Costly Single Item

I should like to go back for a moment to the most expensive single

item in a refrigerating system, which is the refrigeration machine itself. Most older installations employ condensing units using ammonia as a refrigerant, but in recent years a new refrigerant ("Freon-12") has replaced ammonia to a great extent.

Practically all codes now prohibit the use of ammonia as a refrigerant for air conditioning systems. "Freon-12" has gained wide acceptance in the refrigeration field for the same reasons as in air conditioning, and for the additional reason that it does not damage foods and other perishable products in the event of a refrigerant leak.

Some Units at 1,750 r.p.m.

Along with "Freon-12" came the development of more compact, higher speed condensing units. Many people have an aversion to the higher speeds because they say a machine turning at 1,750 r.p.m., for instance, will wear out faster than one turning at 500 r.p.m. This argument would seem to be true if taken at face value, but an analysis proves the contrary.

Although the higher speed machine may turn at 1,750 r.p.m. while the other turns at 500, the bearings and piston wearing surfaces move across each other at essentially the same speed. This sounds highly technical, but can be proved in a few minutes. The advantages offered by the smaller, higher speed condensing units are that they weigh less, occupy less space, and are more vibration-free. This means that they can be installed in smaller spaces and on floors which would not hold the weight or stand the vibration of the larger machines.

The tendency of most manufacturers is toward high speed machines. As a matter of fact, centrifugal type machines furnishing refrigeration for various applications have been running for many years at several thousand revolutions per minute.

Buy from Reputable Firms

In closing, I should like to emphasize the importance of buying equipment that is made by a reputable manufacturer and sold by a reputable dealer. Only this combination can furnish the high quality product, engineering know how, and efficient service after the equipment is installed that give you the most refrigeration for your dollar over a period of years.

It is far better to buy good equipment even at a little higher price than to face the possibility of expensive repairs, food losses, and dissatisfaction forever after.

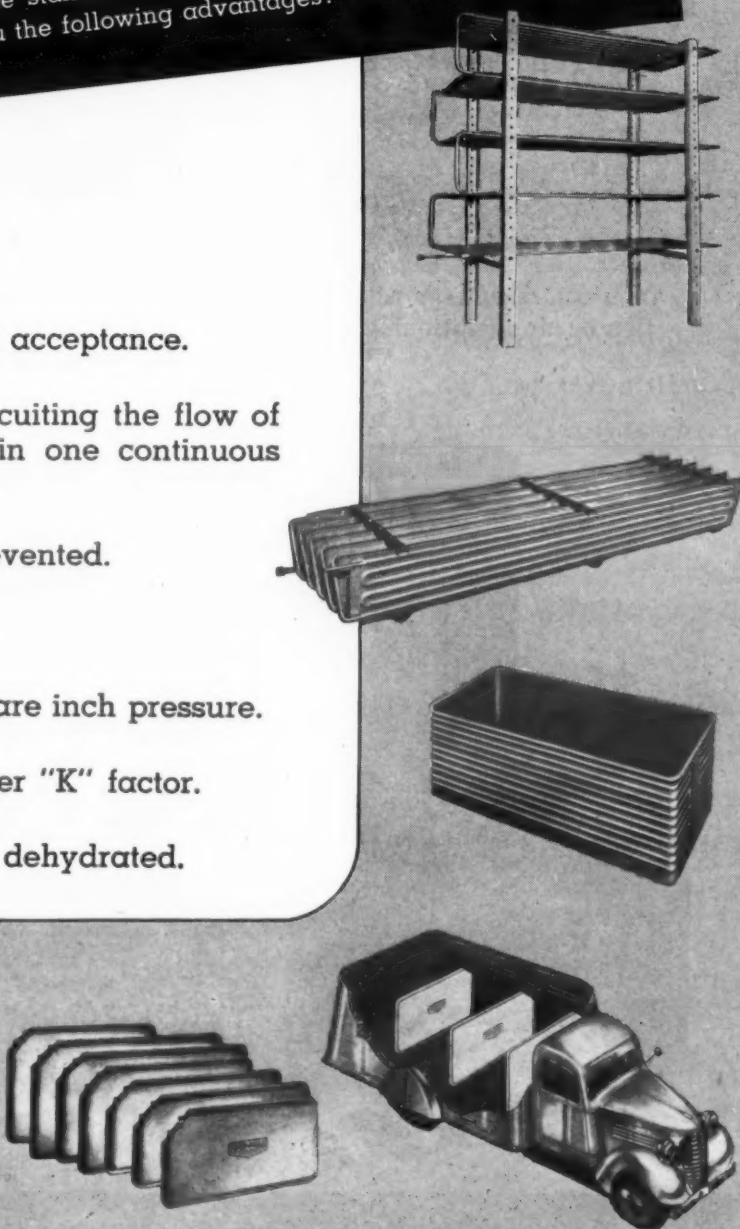
KOLD-HOLD EVAPORATOR PLATES

For ALL Lowside Applications

The New Kold-Hold "Quick-Action" Serpentine Plates offer outstanding economies and efficiency. Specifically, these plates either used separately, in banks, in plate stands, or as complete cabinet liners, assure you the following advantages:

- 1 Easy installation.
- 2 Maximum prime surface.
- 3 Highest rate of plate heat acceptance.
- 4 No possibility of short circuiting the flow of refrigerant which flows in one continuous pass from inlet to outlet.
- 5 Oil logging positively prevented.
- 6 Minimum pressure drop.
- 7 Tested to 300 lbs. per square inch pressure.
- 8 Has an appreciably higher "K" factor.
- 9 Thoroughly cleaned and dehydrated.

For transportation of perishables, Kold-Hold Truck Plates prevent loss from spoilage, preserve truck bodies and eliminate unnecessary time losses from loading and unloading.



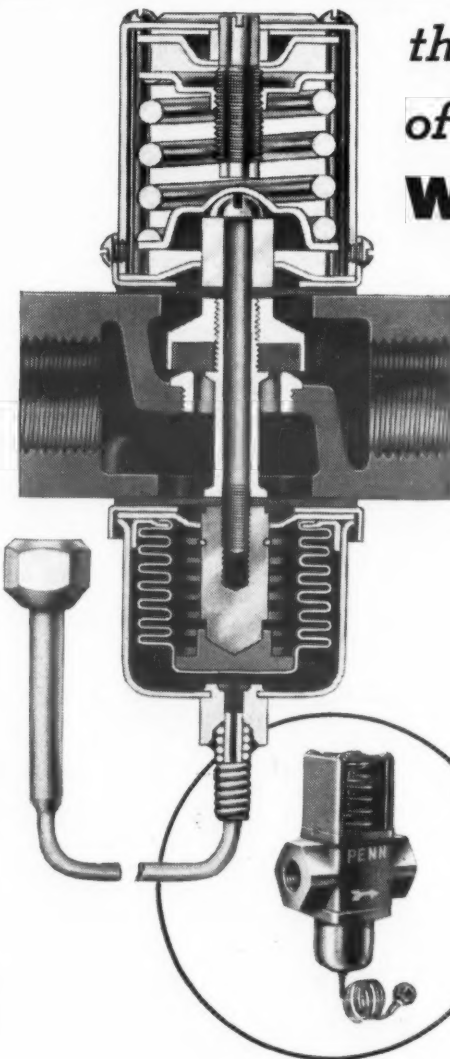
KOLD-HOLD

KOLD-HOLD MANUFACTURING COMPANY

(Write For Complete Catalog!)

500 E. HAZEL STREET, LANSING 4, MICHIGAN

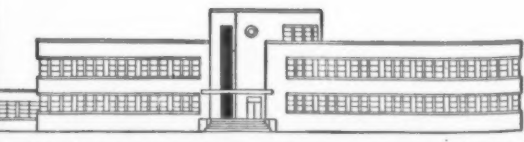
the inside story of PENN WATER VALVE efficiency



This is how your PENN Water Valve looks inside. See how its simplified design outwits rust, corrosion and sedimentation. Water flows in the center section only. The range spring and sliding parts never come in contact with water. There's no premature wear and water valve failure with PENN Water Valves.

In addition, sticking seats and water hammer are eliminated... yet the valve is very sensitive to changes in refrigerant head pressure. PENN Valves are built in threaded and flanged styles... in sizes to meet your specific needs. For full details, write Penn Electric Switch Co., Goshen, Indiana. Export Division: 13 E. 40th St., New York 16, U.S.A. In Canada: Penn Controls, Ltd., Toronto, Ontario.

PENN



AUTOMATIC CONTROLS

FOR HEATING, REFRIGERATION, AIR CONDITIONING, ENGINES, PUMPS AND AIR COMPRESSORS

Refrigeration Problems

By P. B. Reed

Manager, Refrigeration & Air Conditioning Division, Perfex Corp.

The Refrigerated Railway Car (2)

Except for a few hundred of the more modern railway refrigerator cars built during the last year or so, there has been very little change in refrigerator car design in many years. The average refrigerator car is about the same size as an ordinary 40-ft. freight car and below the floor, is practically identical, being mounted on two heavily sprung four-wheel trucks.

The under-structure has a steel frame, but the floor, walls, and roof are of steel and wood construction. Some cars have steel ends to give greater strength against the tendency of the load to damage the car ends during sudden starting and stopping. Average insulation is 2 or 3 in. of hair felt or vegetable fibers, which is not much insulation considering that the car is exposed to the direct rays of a hot summer sun. The inside dimensions are about 33 ft. in length, 8 ft. in width, and 8 ft. in height. There are two hinged doors in the middle of each side wall so that the car can be loaded or unloaded from either side.

TWO END BUNKERS

Ice is placed in bunkers in each end of the car. These are mostly of wood construction and extend from floor to roof. The deck of the bunker is adjustable so that it can be raised to about half-way, or an additional deck that folds against the end wall is provided to allow for "half-icing."

Bunker-heads are sometimes removable or collapsible so that they can be folded back against the walls to give more room when the car is not being iced and is being used as an ordinary freight car to haul freight not requiring refrigeration.

The ice is put into the bunkers from the top, through two roof doors for each bunker, one on each side of the sloping roof. The cakes of ice are broken into large chunks before being put into the bunkers, so as to give greater surface to the ice and thus better heat transfer.

GRAVITY AIR CIRCULATION

Except for a few thousand refrigerator cars that are equipped with fans, the air circulation is of the gravity type, double cycle. Such a car is shown in Fig. 1. The air is

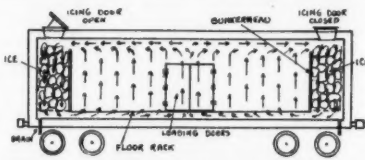


Fig. 1—Refrigerator car with end bunkers. Air circulation by natural, gravity convection.

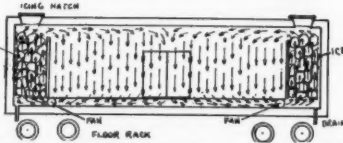


Fig. 2—Refrigerator car with forced air circulation by two belt-driven fans. Direction of air circulation is reverse of that in Fig. 1.

chilled by contact with the ice in the bunker, becomes heavier and thus drops to the bottom and pushes out into the car under the floor racks, displacing and forcing upward and into the top of the bunker, the warmer air surrounding the load.

The air is, therefore, rising through the product to be cooled and dropping through each of the two iced bunkers, in very much the same manner as in the former double-end-bunker type display case.

In this system, the air circulation is not positive and varies in velocity with the amount of ice in the bunker, how tightly the lading is packed in, and other variable factors. Moreover, it results in unequal air circulation and unequal temperatures throughout the load. The product near the bunkers may be kept at the proper temperature, whereas that in the center of the car may be 10 or 20° warmer—too warm to avoid excessive deterioration in the quality of the perishable product.

SOME CARS HAVE FANS

Many refrigerator cars built within the past few years are equipped with squirrel cage type fans that extend from one side of the car to the other, just under and in front of the bunker-heads as shown in Fig. 2. They are driven by a belt from a friction wheel on the car wheel and the fans therefore run only when the car is in motion.

The direction of air-flow when the fan is running is the reverse of gravity circulation. The fan draws air from the floor, pushes it up over the ice in the bunker, and blows the cooled air out along the ceiling of the car, over the load. It passes down through the load, cools the

product and is picked up by the fan again. In this forced-convection cycle the air passes upward through the bunkers and downward through the load; just the reverse of the gravity impelled circulation.

This gives a more positive circulation, a better distribution of cooled

air and more nearly uniform temperatures throughout the load. Some of its disadvantages are obvious:

- (1) There is no forced air circulation when the car is not moving, and in fact less than the gravity movement because of the obstructing fan.
- (2) The rate of air movement and

consequently the distribution of air and temperatures, vary according to the speed at which the car is moving. Despite these objections the axle-driven, air-circulating fan is a step in the right direction and does constitute a distinct improvement.

(To Be Continued)

TRAFFIC CENTER

The meat department is the focal point in food stores. SHERER display cases naturally attract the flow of traffic by making possible outstanding displays of perfectly kept meat.



REFRIGERATED MERCHANDISERS

SHERER-GILLETT CO., MARSHALL, MICHIGAN

PAR REFRIGERATION UNITS



to
5 H. P.
Heavy Duty
Commercial Units



PAR—Condensing Unit Line sold exclusively through Franchised Refrigeration Equipment Wholesalers!

provide a wide variety of models and sizes for "tailored" installations. With Par there's a proper size to fit every application . . . giving balanced performance for economy and efficiency. And Par's many outstanding features of construction assure dependable, trouble-free service. Know more about Par—see your Par wholesaler or write for illustrated catalog R-98.

The NAT Corporation of Kansas City

announces
THE NEW
NAT
(self contained)

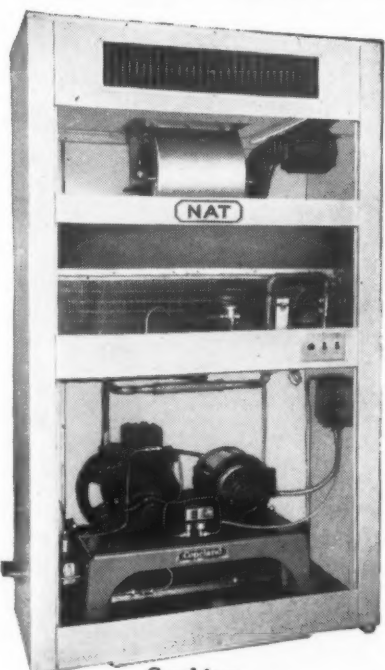
AIR CONDITIONER

The Nat Air-conditioning Unit's unique design, based on 17 years of research directed by Nathan Baraban, makes it—

The Answer to the Service-Man's Prayer

All working parts are accessible without having to tear down the cabinet. A saving of time and labor.

The NAT Unit comes in 3 sizes:
3.0, 4.2 and 5.4 Tons



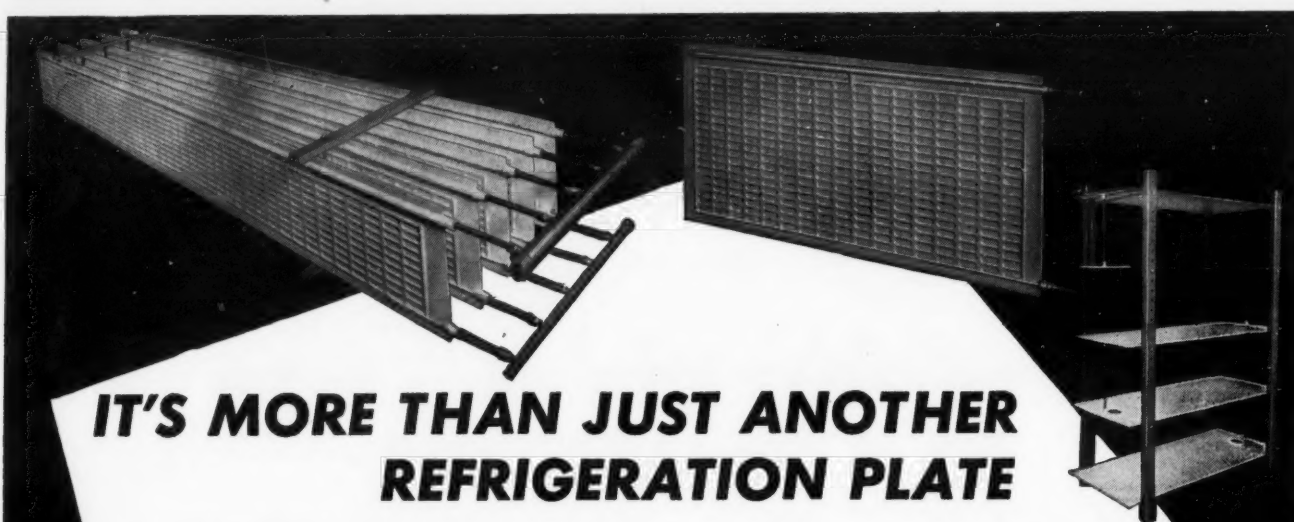
Combines
Appearance and Performance
with PRACTICAL Design
Finished Cracked Brown or
Hammered Grey Baked Enamel

Sold through exclusive dealers and distributors
some territory still open — inquiries invited

The NAT Corporation

2710 McGee Trafficway • Phone HA. 1892 • KANSAS CITY, MISSOURI
The Nat Corporation also manufactures the NAT Suspended Gas-Fired Unit Heater

... By Comparison — You'll Buy **PAR**
Lynch Manufacturing Corporation
General Offices, Toledo 1 • Factory, Defiance, Ohio, U.S.A.



IT'S MORE THAN JUST ANOTHER REFRIGERATION PLATE

In thousands of freezer cabinets, frozen food locker plants, sharp freeze shelf stacks and similar equipment all over the country Hubbell-Yoder Refrigeration Plates are doing the job better than it has ever been done before, and at a lower cost. They have established a new and vastly higher standard of operating efficiency and economy for low temperature refrigeration. They have set up a new mark for all other freezing units to shoot at. That briefly, is what the Hubbell-Yoder system of Complete Surface Freezing means when the chips are down. Would you like to know how it can be adapted to your requirements? Write, wire or phone.

HUBBELL-YODER ENGINEERING SERVICE, INC.
1311 WEST 80th STREET • CLEVELAND, OHIO

THE MASTER SERVICE MANUALS - - -

— — — and other books of the Refrigeration Library are depended upon as textbooks in trade schools from coast to coast.

BUSINESS NEWS PUBLISHING CO., DETROIT

Binkley

HOME AND FARM FREEZERS

NOW AVAILABLE

DEALER'S PRICE
\$252.00
F.O.B. ST. LOUIS, MO.
CRATING \$7.00 EXTRA



DON'T LET THE LOW PRICE MISLEAD YOU . . .
this is TOP QUALITY merchandise priced to reach the buying public. OPA list price on this unit was \$530.00!

- ✓ **CONSTRUCTION**—Insulation is six pound density. It is fireproof, vermin proof fibre—glass packed, four inches deep on the sides and five inches on the bottom. Cabinet walls are sealed—vapor proof!
- ✓ **SAFE-FREON** is the refrigerant in the Binkley Freezer. It is non-explosive, non-corrosive, non-toxic, odorless, fireproof, stainless and tasteless.
- ✓ **ENGINEERING**—All compressors, valves, controls and coils are well known standard makes. They are the finest.
- ✓ **CONVENIENT**—Top opening lid makes all parts of the interior handy to get to. Lid can't freeze shut!
- ✓ **CAPACITY**—The Binkley Freezer is 80 inches long—27½ inches wide and 34 inches high. Its capacity is 15 cubic feet!

COMPARE THESE PRICES

Compare the prices of the new Binkley Freezer with that of the six leading competitors making a unit of comparable size. Binkley sacrifices on price but not on quality!

BOX A	\$383.00
" B	378.00
" C	378.00
" D	372.00
" E	345.00
" F	336.00
BINKLEY	252.00

SEND YOUR ORDER NOW — IMMEDIATE DELIVERY

crawford
ENGINEERED EQUIPMENT COMPANY

413 MERCHANTS EXCH. BLDG.
ST. LOUIS 2, MISSOURI

What's New

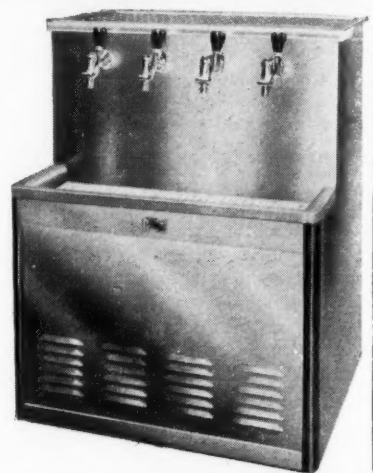
Paley Mfg. Dry Beer Cooler Has 'Plug-In' Connection

BROOKLYN — Paley Mfg. Corp. announces that production is under way on a self-contained, instantaneous, dry-expansion beer cooler which requires only a "plug-in" connection for operation.

Powered by a ¼-hp. condensing unit enclosed in the base, the cooler is 42 in. high, 24 in. deep, and 28 in. long. It is solid aluminum block encasing stainless steel coils, and all visible parts are of extra-heavy-gauge stainless steel with heavy-gauge, rust-resistant steel structural parts.

Four taps (three for beer and one for water) are described as "free flowing, quick acting, and positive in the delivery of a uniform, steady flow without gushing." They are made of a non-corrosive material. Shut-off is said to be "instant and complete."

According to the manufacturer, no refrigeration installation work is necessary. It is connected by "plug-



in" to any 116-volt, 60-cycle, a.c. (d.c. special) socket.

"In fact," it is claimed, "replacement by Paley may be done in less than an hour, provided drain, intake, and electric outlet are handy."

G-E Washer's Enamel Skirt Covers Motor and Pump

BRIDGEPORT, Conn. — A new General Electric wringer washer, the AW-332, with a full-length, to-the-floor skirt has been announced by C. E. Anderson, manager of the company's home laundry equipment division.

Purpose of the skirt, which is finished in white baked enamel, Mr. Anderson said, is not only to give the washer a cleaner and better appearance, but also to conceal and protect the mechanism and pump. Four 2½-in. casters are mounted in the skirt for easy movement.

The appearance of the washer has been further improved by adding a chrome trim band, a wringer post cover, and cord hooks.

Holding eight pounds of dry clothes, the porcelain-enameled, self-draining tub is mounted on a rubber gasket to absorb vibration. The water line is plainly marked both inside and out.

Washing in the new machine is accomplished by an aluminum-alloy activator. The one-control wringer automatically goes forward or backward, or starts or stops, as the hand turns the single control handle. Pressure is instantly released and the rolls are stopped when the handle is pushed in.

The friction-driven pump empties the tub in approximately two minutes.

A ¼-hp., rubber-mounted motor and a "Permadrive" mechanism that has only four moving parts drive the washer.

The washer, which is now in production, is being shipped to dealers across the country.



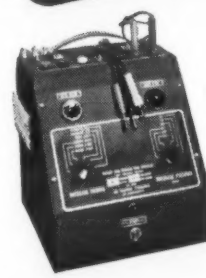
General Electric wringer washer model AW-332.

Order Monday—Get It Friday
HANDEE All Steel Trucks with extra wide nose and 13 ft. web strap, for use as
Refrigerator and Appliance Truck
\$19.95

Rubber Tires; 600 lb. Cap.; Height 48"; 5x2" wheels; 1" tube steel frame; Chrysler Oilite bearings; Easy rolling. For medium size appliances and refrigerators and for all general purposes. Not padded. Shipped same day order received. Return express collect if not highly useful to you. 1% 10 days.

Order from
HANDEE CO.
Dept. AC-6
Bloomington, Illinois

AIRSERCO
Short cuts for the service engineer



ANALYZER—A "must" service instrument that starts up defective compressor units without tearing apart the motor assembly. Starts both hermetic and open-type units up to ½ h. p. under actual working conditions—and may be left on the job for emergency service. 56 starting combinations.

VALVE ANALYZER—A revolutionary time-saving instrument that tests and sets the superheat requirements for all types of Thermostatic Expansion Valves. Provides laboratory accuracy on the job—eliminates all guesswork.



STEEL TANK HOLDERS
Facilitate the SAFE transfer of refrigerants in the shop and on the job. Lightweight, free-standing, portable, and color coded.

SEND FOR CATALOG A-7



AIRSERCO
MANUFACTURING CO., INC.
435 MELWOOD ST., PITTSBURGH 13, PA.

EXPORT OFFICE: Melchior, Armstrong, Dessau Co., Ridgely, N. J.

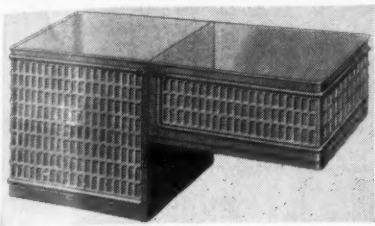
BRANCH OFFICES: Boston, New York, St. Louis, Cleveland, Knoxville, Minneapolis, Los Angeles

What's New (Cont.)

New BTC Plates Have 'Cross Flow' Distribution

BINGHAMTON, N. Y.—New type evaporator plates which permit the refrigerant to flow in multiple paths and thus flood the entire surface of the plate have been developed by the Crandal-Stone division of the Brewer-Titchener Corp. here.

The multiple paths for "Cross Flow" have special angular shaped bases which create greater turbulence of the refrigerant, the manufacturer says. Any large vapor bubbles are



A cabinet liner designed from BTC plates

broken quickly by such turbulence thereby obtaining greater heat capacity, it is claimed.

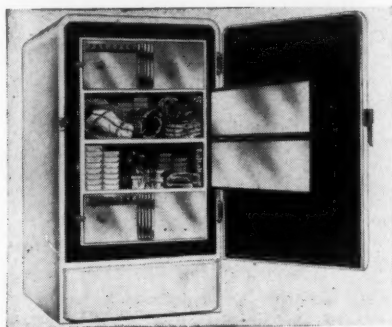
"Cross Flow" distribution further assures a low pressure drop with resultant low operating costs, he adds.

Standard are the "V" plate for vertical installations such as walls and ceiling bunkers, and the "H" plate for horizontal installations such as salad counters and shelves.

The "V" plates are made from 5 in. to 36 in. wide and 21 in. to 120 in. long. The "H" plates are 22 in. wide and from 24 in. to 96 in. long.

Both of these plates are constructed of heavy 16 gauge steel, embossed, electrically welded, and with metalized zinc spray on sand blasted surface, the manufacturer declares. The easily accessible surfaces, done in a grid-iron design, can be defrosted by brushing, he adds.

For special applications, the plates can be fabricated in "U," "L," step, cylindrical, and cabinet liner forms, the company states.



General Machine Makes 4-Compartment Freezer

EMMAUS, Pa.—A new, vertical, 15 cu. ft. capacity Gemaco home freezer has been placed in production by the General Machine Co., Inc. here.

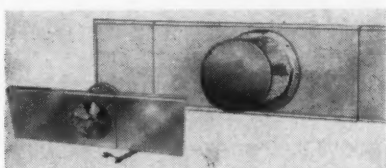
The new unit features four individually sealed front opening storage compartments, each extending the complete width of the freezer.

Four cold plates are used, the manufacturer explained. One is in top of the aluminum inner cabinet liner and the other three form the shelves upon which packages rest.

Both the outer shell and the aluminum liner are hermetically sealed to prevent moisture-laden outside air from getting into the 5 in. of glass wool insulation, the manufacturer asserted.

The outer door, constructed of heavy gauge steel, contains 4 in. of fibre glass insulation, he said. Separate inner doors on each compartment minimize cold loss when the outer door is opened, he added.

The Gemaco freezer is equipped with a thermostatic expansion valve, a thermostatic control which is said to require no setting or adjusting after it leaves the factory, an accumulator to prevent liquid refrigerants from entering the compressor cylinder, a heat exchanger, and a self-contained battery alarm set to ring when the temperature rises to 10° F.



Ventilator Exhausts Air Or Acts as Cooling Fan

NEW YORK CITY—A lightweight, all-purpose room ventilator which is said to act as an exhaust fan when placed in a window and a cooling fan when turned about is announced by Cir-Q-Laure Co., Inc., here.

Carrying the same name as its manufacturer, the unit is adjustable to pull-up or double-hung windows.



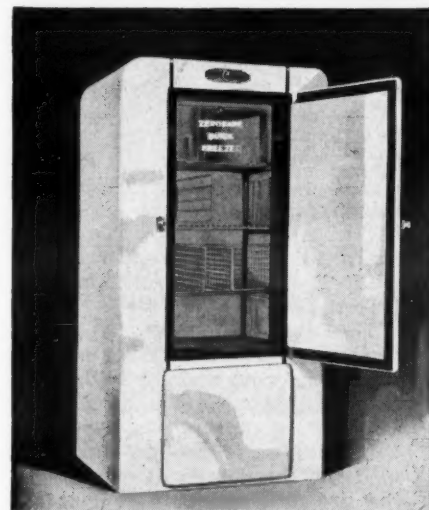
"ONE STOP SERVICE"
For Your
**REFRIGERATION
SUPPLIES and PARTS**

also Complete Stocks of
Pipe, Valves & Fittings

HAJOCA CORPORATION

Philadelphia, Penna.

Chattanooga, Tenn.



Wilson "ZEROSAFE"
Model FF-15 Farm Freezer

WILSON "ZEROSAFE" FREEZERS ARE TIME-TESTED

WILSON "ZEROSAFE" REACH-IN FARM FREEZERS ARE YEARS AHEAD

Since 1939 enthusiastic users of Wilson "ZEROSAFE" Freezers have acclaimed the Wilson-pioneered features of front-opening convenience, adequate sizes, real usability and long, efficient life.

Now brought to the peak of its development as a truly great farm and home freezer, the "ZEROSAFE" combines all the great TIME-TESTED Wilson features in ten new models ranging from 15 cu. ft. to 120 cu. ft. in capacity, finished in the gleaming beauty of white baked-on enamel, ready to win new thousands of life-long "ZEROSAFE" friends.

If your merchandising plans include the selling-and-servicing of a complete line of modern freezers that are outstanding in quality and leadership, let's exchange information today. Address Desk 11.

WILSON REFRIGERATION, INC.

SMYRNA
DELAWARE

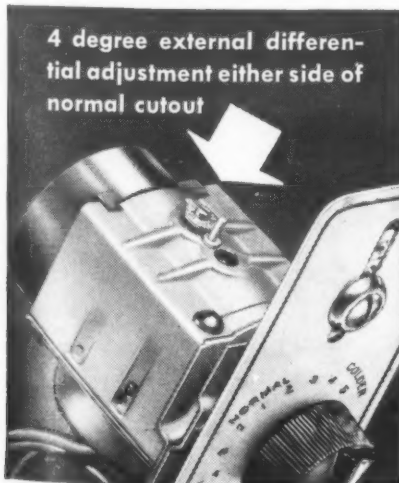
FILLING ALL NEEDS

**The Cutler-Hammer
Line of
REFRIGERATION
REPLACEMENT
CONTROL**

**This One Universal unit
alone covers 60% of
all needs.**



4 degree external differential adjustment either side of normal cutout



Bul.
9521N9

Adjustable Mounting Brackets

Maximum Mounting Centers..... 4-3/16
Minimum Mounting Centers..... 2-3/16

Adjustable Cutout Feature—Differential can be increased 4 degrees by turning indicator in "Hi" direction and decreased 4 degrees by turning in "Lo" direction.

Adjustable Range—Turning screw clockwise lowers settings and counter-clockwise raises settings.

Operating knob can be adjusted to meet various evaporator scale settings. New knob is ideal for varying shield thicknesses. Makes this control adaptable to wider range of single dial replacement jobs where overload is not required in unit.

The Cutler-Hammer line of Refrigeration Replacement Control will meet all the refrigeration serviceman's requirements. One Cutler-Hammer Control Unit alone... the Universal Replacement unit... will handle 60% of his needs. And where exact replacement control is needed, that item also will be found in the C-H Exact Replacement Control line... individually packed, clearly labelled, complete with dial plate, mounting screws, trim washers and full instructions for mounting and adjustment.

Behind this line are 50 years of control specialization and thorough knowledge of merchandising requirements. Thus, the line is recommended by outstanding refrigeration wholesalers from coast to coast and alert service organizations everywhere use it to reduce investment in stock, to insure regular and rapid turnover, faster completion of the job, and greater all-round satisfaction. CUTLER-HAMMER, Inc., 1362 St. Paul Ave., Milwaukee 1, Wisconsin.



DOMESTIC, SEMI-COMMERCIAL AND COMMERCIAL CONTROL

2 EXTRA VALUES



WITH REVERE DRYSEAL COPPER REFRIGERATION TUBE

●When you use Revere Dryseal Copper Refrigeration Tube, you are using the highest quality dehydrated copper tube—dry, clean, dead soft and seamless. But that's not all! Revere Dryseal gives you two extra advantages:



(1) National advertising in The Saturday Evening Post, Business Week, Fortune and many other widely-read publications constantly tells your customers that the name Revere on the products you use is proof of their high quality.



(2) The Revere Technical Advisory Service is always ready to work with you in solving your difficult problems.

Revere Dryseal Copper Refrigeration Tube is made of deoxidized copper (99.9+% pure) and is kept oxide-free by special processing methods. Each length is carefully dehydrated during manufacture, and then immediately sealed at both ends to keep all moisture and other foreign particles out. Because Revere Dryseal is dead soft, it is easy to bend and will not split when flared at the ends.

Revere Dryseal Copper Tube is made for refrigeration, air conditioning, heat control and other services. It comes in sizes from 1/8" to 3/4" O.D., with .035" wall, and is standard in 50-foot coils.

You can get prompt delivery on Revere Dryseal from leading distributors throughout the country.

TO MANUFACTURERS—There is a Revere Distributor near you who is prepared to give you cooperative service on your needs for Revere Copper Tube, Brass Rod, Welding Rod and other standard Revere products.

REVERE

COPPER AND BRASS INCORPORATED

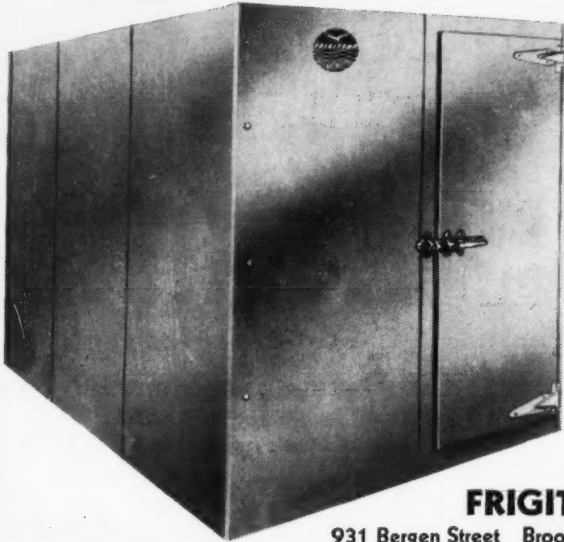
Founded by Paul Revere in 1801

230 Park Avenue, New York 17, New York

Mills: Baltimore, Md.; Chicago, Ill.; Detroit, Mich.; New Bedford, Mass.; Rome, N. Y.—Sales Offices in Principal Cities, Distributors Everywhere.

WALK-IN BOXES-SECTIONAL-PREFABRICATED STEEL-ALUMINUM-WOOD

Prefabricated Sectional Storage Boxes. Metal clad. Insulated with 4 inches of Fiber Glass. "Sets-Up" easily. Makes a Neat, Strong Air-Tight job.



"S" Line is Steel exterior Sprayed Finish—interior Natural Galvanized. "A" Line is Aluminum interior and exterior—floor Galvanized. Standard 3 ft. sections—two heights 6'6" and 8'. The "A" Line can be Custom-Built to your dimensions. We also make wood Walk-In Boxes, Fir exterior and Spruce interior to your special order. All boxes are equipped with Heavy Duty Automatic Locks and Hinges.

FRIGITEMP CORP.

931 Bergen Street Brooklyn, N.Y. Main 2-9093

NEW NO. 47 CATALOG

NOW OFF THE PRESS

WRITE FOR COPY ON YOUR LETTERHEAD TODAY

REFRIGERATION PARTS
AIR CONDITIONING AND
HEATING SUPPLIES

THE SUPPLY HOUSE THAT SERVICE BUILT

SERVICE PARTS COMPANY

2511 LAKE STREET, MELROSE PARK, ILL.



'Fill 'er Up' Means Locker, Not Gas Tank

By C. Dale Mericle

BOWIE, Tex.—All sorts of buildings have been converted into locker plants, but H. W. Ayres should rank high on the "unusual list" because he took over an automobile service station here and turned it into a "food service station," as it were.

The actual job of conversion was performed by F. H. Towe of Oklahoma City, who operates Air Conditioning Engineering Co. there. This firm specializes in low temperature refrigeration jobs such as locker plants, food processing establishments, and the like.

Extensive alterations were required on this job, but the conventional T-shape of the service station was retained. The 23-ft. square front section where automobiles formerly pulled in for gas has been bricked up to form the front office and retail sales area where frozen foods are handled.

Each side of the main structure had two large drive-doors and racks for oil, grease, and other repair jobs, and the reconversion job required bricking up these doors, also. On the left side there is now a locker and sharp freeze room measuring 37 ft. by 26 ft. A total of 645 18-in., 5-high lockers has been installed.

The other side of the "T" has been changed to house a curing room and processing room, along with the receiving entrance, and machinery room.

In the center section directly behind the retail area at the front are the pre-chill and chill rooms, wrapping tables, and entrance-way to the locker room proper.

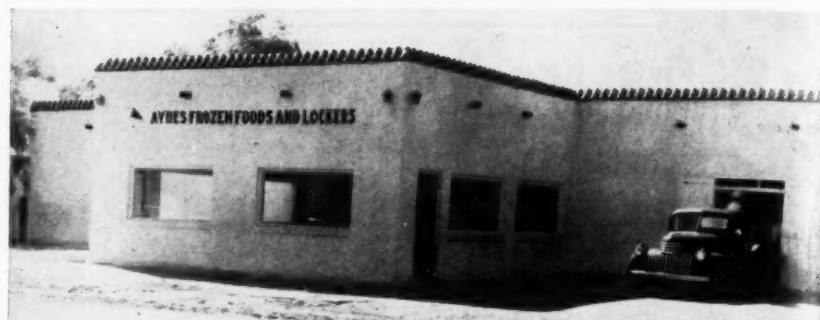
It was necessary to remove all the flooring, plumbing, wiring, and the gasoline service lines, according to Mr. Towe. Fiberglass boards were installed for insulation, 6 in. going into the locker room side walls and floor, 8 in. for the ceiling and for the sharp freeze room, which is held at -30° F. Walls of the curing and chill rooms were fitted with 4-in. insulation boards.

To facilitate handling of carcasses, an overhead track runs from the receiving entrance on the right through the processing room and into the pre-chill and chill rooms.

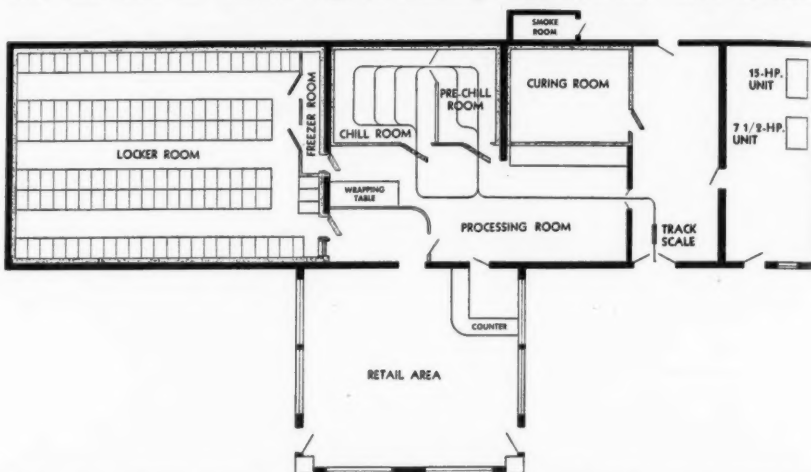
Refrigeration for the plant is supplied through an ammonia system powered by a 15-hp. 4-cylinder Baker machine. Another Baker compressor—a 7½-hp. 2-cylinder unit—has been installed for standby service.

Pipe coils are employed throughout, including the sharp freeze room.

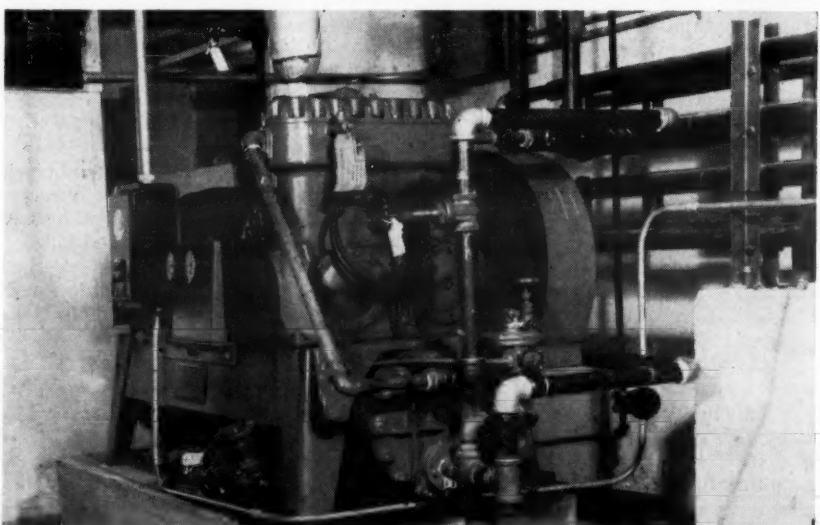
Curing room is normally held at 40° F.; the pre-chill and chill rooms at 35°; the locker room at 0°, and the freezer room at -30°. The latter room has a capacity of 2,400 lbs. a day.



Car owners used to drive in here for gas and oil, but now they stop for frozen foods and the other locker plant services offered by H. W. Ayres, who had this car service station building converted for "food service."



Plan view shows how the various departments that make up a complete locker plant were arranged in the gas station after extensive alterations.



This 15-hp. Baker ammonia compressor supplies refrigeration for the plant with a 7½-hp. unit standing by for emergency operation.

Since 1935

Ask The MASTER Distributor Near You

You'll find that he renders a service that saves time, trouble and expense. Ask him anything about Locker Plants and you get sound advice—the kind of advice that you can cash in on. He'll recommend



MASTER FOOD CONSERVATORS

Because they fulfil your every need in Locker operation. He's building for the future for himself and you—not the present.

Get Full Particulars

We'll gladly send them, or if you prefer—Ask the MASTER Distributor and find out why MASTER will safeguard your investment. Do it today.

Endorsed by and sold through distributors of refrigeration and insulation.

MASTER MANUFACTURING CORP.

121 Main St.

Sioux City 4, Iowa, U.S.A.

Member of Frozen Food Locker Institute, organized for your protection.

Over 1,000,000 Master Food Conservators in Use

FREEZER Z SENTRY



THE POSITIVE ALARM FOR ALL FROZEN FOOD CABINETS

• The simplest device you have ever seen to warn of mechanical troubles. Designed for use in any low temperature cabinet. Can be installed in two minutes by anyone.

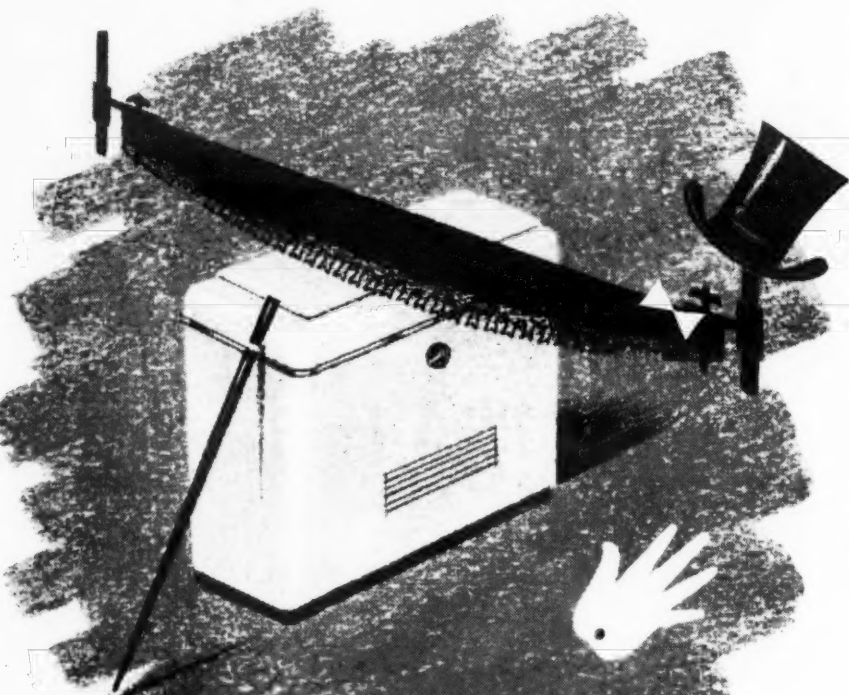
Buzzer, battery operated. Trickle charger insures five-year battery life. Buzzer operates 100 hours. Actuated at plus 12°F by mercury contact. No thermostat to get out of order. Action is as positive as gravity.

A package item that sells itself on the first service call, or to new owners of freezers.

Immediate delivery. Write us for details and discounts.



JEWETT ASSOCIATES
1033 MAIN ST. BUFFALO 8, N. Y.



WORST TRICK OF THE CENTURY!!

SAWING A FREEZER IN HALF!

MR. FREEZER MERCHANT, every freezer you sell for use ONLY as a storage bin for commercial frozen foods means you are playing yourself the Worst Trick of the Century. You are sawing its use (and your sales) in half. Few consumers can afford a freezer for just this purpose.

The real economy of a freezer lies in its value to preserve home-grown foods; to put away meats, poultry, fish purchased at peak quality and favorable prices; to keep baked goods; to preserve cooked left-overs... and one-hundred-and-one other uses.

You must sell these uses to prove the economy of owning a freezer. That's where we come in... for these uses mean home packaging. Our ZER-O-LINE

presents a complete assortment of frozen food packaging geared to help you put across the answer to the question "Why a Freezer?"

Distributors... Contact us for further information. Write Dept. 547



YORKVILLE PAPER CO., INC.
NEW YORK 21, N. Y.

Iceberg Locker Systems Names Eight Distributors

NEW YORK CITY—Iceberg Refrigerated Locker Systems, Inc., manufacturer of self-contained locker units here, has appointed eight new distributors, announces F. C. Margolf, sales manager. The newly appointed distributors are:

Wands, Inc., New Orleans—M. T. Wetherbee, general manager.
Arcticaire Refrigeration Co., Kansas City, Mo.—George T. Rostock, owner.

Little Rock Refrigeration Co., Inc., Little Rock, Ark.—Herman T. Cumnock, president.

W. A. Case & Son Mfg. Co., Buffalo—H. W. Fell, vice president.

Heaven Engineering Co., Springfield, Mo.—John Withrow, manager.

Charles Ilfeld Co., Albuquerque, N. M.—T. T. Gillett, manager commercial department.

Talbert-Thomas Co., Chicago—Irvin J. Kristufek, vice president.

Bristol Supply & Equipment Co., Bristol, Va.—E. F. Boyd.

FM Radio Output Up 47% In April, RMA Figures Show

NEW YORK CITY—A 47% increase in the production of frequency modulation radio receiving sets in April over March reported by the Radio Manufacturers Association.

The RMA also noted that the weekly average production of all types of sets during April was higher than the average for the first quarter.

Because RMA reports are made weekly, the figures for March cover the four weeks between March 3 and 28, while the April figures are estimated from reports covering the five weeks from March 31 to May 2.

On this basis, April production of FM receiving sets by RMA members was estimated at 98,625 as compared to 67,264 for March. Actual figures for the five weeks were 112,256.

Production of all types of radio receivers during April is estimated at 1,548,540 as compared to 1,377,269 for March. For the five weeks, 1,759,723 sets were manufactured.

Television sets showed a slight gain over the 6,639 made in the four weeks in March. Total for the succeeding five weeks was 7,886.

FTC Survey On Prices --

(Concluded from Page 1, Column 4)
trust actions.

Information sought by the FTC from some 200 manufacturers in a wide variety of industries is said to include the following data:

1. The wholesale and retail resale price named in fair trade contracts in effect April 1, 1946; Jan. 1, 1947; April 1, 1947, and May 15, 1947.

2. Suggested wholesale and retail price if price is not fixed by contract for the above specified dates.

3. Changes in discounts to retailers and wholesalers between April 1, 1946, and May 15, 1947.

Nicholas Gesoalde, executive secretary of the New York State Pharmaceutical Association, on hearing of the survey, scored it as unjustified and based on hysteria.

He further declared that any effort to repeal New York's fair trade laws or the Miller-Tydings Enabling Act, which exempts resale price maintenance agreements from possible anti-trust prosecution, would be fought bitterly by drug retailers, "even to the extent of a march upon Washington."

"As I see it," Mr. Gesoalde asserted, "the current hysteria develops from the fact that many larger retailers have heavy inventories of inferior goods not coming under fair trade laws."

"These are over priced and could be marked down sharply to reach a normal price. But this is not true of fair trade merchandise, which has been fairly priced."

"It appears to be a move on the part of large retailers to hit smaller merchants."

Other arguments in favor of fair trade laws offered by retailers are that they fill the need for maintenance of a legitimate price on established, high demand items, such as appliances and radios.

Abolition of the fair trade statutes, it is argued, would put the legitimate retailer right back at the mercy of large volume price cutters, as he was in the 1930's.

On the other side of the fence, complaints are heard that the fair trade laws are being used by manufacturers of questionable merchandise to keep its price up. Some retailers say this rigidity of the price structure leaves them with only minor control over retail prices and hinders them from lowering prices.

Appliance Dealers Are Hit By New Rhode Island Taxes

PROVIDENCE, R. I.—New tax burdens for Rhode Island appliance dealers are included in a compromise omnibus tax bill, designed to raise a total of \$12,280,000 a year through a 1% sales tax and several other new and increased levies, which was given final approval recently by the Rhode Island Legislature and signed into law by Gov. John O. Pastore.

Scheduled to go into effect July 1, the sales tax will be levied on gross receipts of all Rhode Island retailers, but will be passed on to the consumer. It sets a rate of 1 cent on purchases of goods not already subject to state taxation, valued at 25 cents to \$1.39, and an additional cent

for each additional dollar value for purchase or fraction thereof.

Supplementing the sales tax is a 1% use tax on purchases made by Rhode Islanders outside the state for use, storage, or consumption in Rhode Island.

York Orders 15-Cent Dividend

YORK, Pa.—A dividend of 15 cents on its common stock of record June 13 has been ordered by York Corp. The dividend is payable July 1.



HASCOBILT
Parts
Part No. 7-9
Packed in Special Cardboard Boxes or Containers

Offers
(1) Complete inventory record.
(2) Part numbers always visible.
(3) Easily stored in bins or on shelves.

HASCO, INC.
GREENSBORO, N. C.

for Conventional and
Hermetic Type Compressors

Write for illustrated catalog and price list.



Type O-1419
Commercial
Control

Ranco Controls

The Proof's in the Use --

Check the Man Who Uses Ranco -- the best way to get facts!

Ranco Refrigeration Controls for household and commercial replacement are precision machined from the most long-lived steels, alloys and coppers available—for your protection designed by experienced refrigeration control engineers.

See your Ranco Jobber for controls
for all refrigerating units

Ranco Inc.

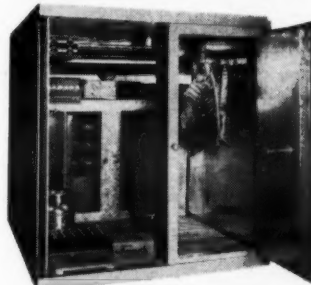
COLUMBUS 1, OHIO

FOR THE REALLY COMPLETE LINE —IT'S LOUDON!

Here's An Important Announcement for You AND Your Customers.

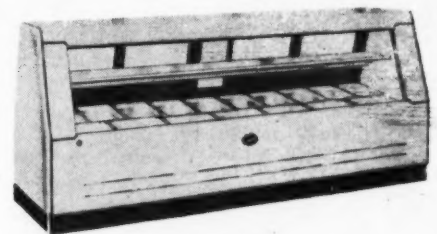
Ready for immediate shipment from their three factories, Loudon Sales Company offers a complete line of walk-ins, reach-ins, display cases, frozen food cases, dairy cases, ice cubers, milk coolers, home and farm freezers—Every model in the line engineered and designed to give your customers maximum performance, to give YOU top full-line advantages for more profitable sales.

1. Two-Temperature Walk-In Cooler



Freezer compartment of 33 cubic feet. Newest on the market for home or store. All steel—1/2 horsepower compressor—3 shelves for fast freeze—individual coil for storage section. White Dulux finish. Size overall 7.4 x 7.4 x 6.8, and other sizes.

2. Display Cases



Single or double duty display cases—porcelain in and out—adequate wrapping boards with scale shelf—4" thick insulation—rubber doors and frames—Thermopane glass—"Kool-Brite" lighting.

3. Frozen Food Display Case



Upright model frozen food display case—White Dulux exterior—three Thermopane equipped doors for easy access and full display. Self-contained.

4. Ice Cube Makers

Three ready-to-plug-in models. Each equipped with 1/4 horsepower compressor. Three models with 12 and 20 ice cube trays, 21 cubes to tray. All with adequate storage space.

5. Farm Milk Coolers

Heavy duty milk coolers in 2-3-4-6-8 sizes.

7. Home and Farm Freezers

Complete line of home and farm freezers in 10, 15, and 20 cubic foot capacities. Home freezers are white baked enamel finish on rustproof cold rolled steel—4" Fibreglas insulation—Dole plates—White-Rodgers automatic control. Farm models are especially designed for farm use—exteriors of 20-gauge galvanized sheet steel. All models complete with compressor. Upright models available.

8. Two-Temperature Reach-Ins

Has temperature control for 36 degrees or high, separate control for zero or low. White baked enamel finish—double doors with 10 cubic foot capacity on each side. Outside dimensions 64" high, 52" wide, 28" deep. Door opening 21" x 36". Ready to plug in—equipped with 1/2 horsepower compressor.

Write for details on the complete Loudon line.

Made to order for full, profitable market coverage.

Dealer and Distributor territories still available.

LOUDON SALES COMPANY, INC.
2524 27th AVENUE SOUTH MINNEAPOLIS 6, MINN.

Boost your June-July-August...

Profits...



...with the **NEW TEMPRITE**
Draught Beer Coolers

COOL DRAUGHT BEER flows freely in hot June-July-August weather and cooling equipment must be right to properly carry these greater loads. Now is the time to replace outmoded, defective equipment with the new Tempprite Draught Beer Coolers.

So, put on your coolest working clothes and go to it, men! Introduce this great new Tempprite in every tavern, club and bar in your territory.

Tell your customers about Tempprite's ability to handle hot weather loads to perfection... with every glass perfectly cooled, every glass perfectly clear!

Tell them about Tempprite's new all stainless steel coils that eliminate metal contamination, and deliver top-flavor beer!

Compact, highly efficient Tempprite coolers provide trouble-free operation and greatly reduce service costs. Don't let your summer-profit months slip away. Wire Now!

IN CANADA: Refrigeration Supplies Company, Ltd., 1127 Dundas Street, London, Ontario

COOLERS
IN STOCK
AT ALL LEADING
WHOLESALES

TEMPRITE PRODUCTS CORP.

Originators of Instantaneous 80°-40° Liquid Cooling Devices

43 PIQUETTE AVENUE DETROIT 2, MICHIGAN

Tells instantly if
the system is wet!

DFN

MOISTURE INDICATOR

For Freon and Methyl Chloride.
Accurate, foolproof, simple, inex-
pensive. See your jobber, or write.

McIntire Connector Co.
Newark 5, N. J.



"ATTENTION"

Refrigeration Dealers in
New York State Vicinity
Announcing our new and improved
"Walk-In Coolers" and "Freezers,"
built of Finest Grade Polished Alu-
minum Alloy or of the Finest Grade of
Kil-Dry Lumber.
Also announcing the newest thing in
Refrigeration: "The Amazing New
Freezocool," the combination Cooler
and Freezer.

We Build 'Em To Your Specifications
For further details on prices, sizes,
etc., write or call:

Preserve Units Products Company
130-132 Allen Street
Rochester 6, New York
Tel. Main 7961

"Manufacturers of all Commercial and
Home Refrigeration Units."

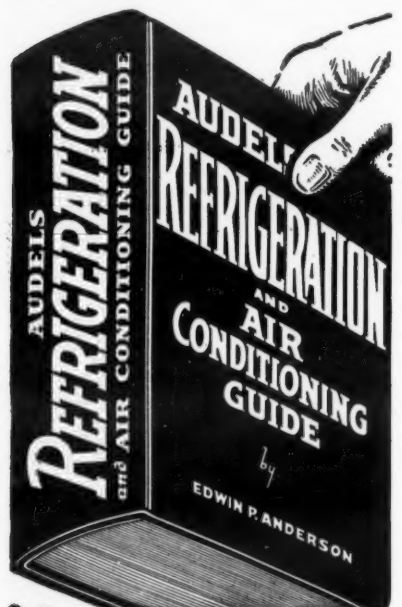
PURQ ELECTRIC WATER COOLERS

BRANCHES
IN PRINCIPAL CITIES

MAIN OFFICE
440 LAFAYETTE ST.
New York 3, N. Y.

PURQ FILTER CORP.
OF AMERICA

DRINKING WATER
SPECIALISTS FOR 40 YEARS.



\$4 COMPLETE PAY ONLY \$1 A MO.

AUDEL'S REFRIGERATION & AIR CONDITION-
ING GUIDE Answers Your Questions on Basic
Principles, Servicing, Operation and Repair of
Household Refrigeration-Special Refrigeration
Units-Commercial and Industrial Refrigeration
-Air Conditioning Systems-Over 1280 Pages,
44 Chapters, 700 Illustrations-Diagrams, includ-
ing data on Freon, Quick Freezing, Lockers and
Water Coolers. A new timely book containing
practical facts and figures for Better Service.
Easy to understand and Handy Ready Reference.

Step up your own skills with the facts and figures of
your trade. Audel's Mechanics Guides contain Prac-
tical Inside Trade Information in a handy form.
Fully Illustrated and Easy to Understand. Highly
Endorsed. Check the book you want for 7 days
Free Examination.
Send No Money. Nothing to pay postman

CUT HERE

MAIL ORDER

AUDEL, Publishers, 49 W. 23 St., New York
10, N. Y.

Please send me postpaid for FREE EXAMINATION books
marked (x) below. If I decide to keep them I agree to
mail \$1 in 7 days on each book ordered and further
mail \$1 monthly on each book until I have paid price.
Otherwise, I will return them.

- | | | |
|--|---------------------|-------------|
| REFRIGERATION & Air Conditioning | 1280 Pgs. | \$4. |
| OIL BURNER GUIDE | 384 Pages | 1. |
| POWER PLANT ENGINEERS GUIDE | 1500 Pages | 4. |
| PUMPS, Hydraulics & Air Compressors | 1658 Pgs. | 4. |
| WELDERS GUIDE | 400 Pages | 1. |
| BLUE PRINT READING | 416 Pages | 2. |
| SHEET METAL WORKERS Handy Book | 388 Pgs. | 1. |
| SHEET METAL PATTERN LAYOUTS | 1100 Pgs. | 1. |
| AIRCRAFT WORKER | 240 Pages | 1. |
| MATHEMATICS & CALCULATIONS | 700 Pgs. | 2. |
| MACHINISTS Handy Book | 1600 Pages | 4. |
| MECHANICAL Dictionary | 968 Pages | 4. |
| AUTOMOBILE GUIDE | 1540 Pages | 4. |
| DIESEL ENGINE MANUAL | 400 Pages | 2. |
| MARINE ENGINEERS Handy Book | 1280 Pages | 4. |
| SHIPFITTERS Handy Book | 272 Pages | 1. |
| MECHANICAL DRAWING COURSE | 160 Pgs. | 1. |
| MECHANICAL DRAWING & DESIGN | 480 Pgs. | 2. |
| MILLWRIGHTS & Mechanics Guide | 1200 Pgs. | 4. |
| CARPENTERS & Builders Guides (4 vols.) | 4. | |
| PLUMBERS & Steamfitters Guides (4 vols.) | 4. | |
| MASON'S & Builders Guides (4 vols.) | 4. | |
| MASTER PAINTER & DECORATOR | 320 Pgs. | 2. |
| GARDENERS & GROWERS GUIDES (4 vols.) | 4. | |
| ENGINEERS and Mechanics Guides | 12. | |
| Nos. 1, 2, 3, 4, 5, 6, 7 and 8 complete | 12. | |
| Answers on Practical ENGINEERING | 1. | |
| ENGINEERS & FIREMAINS EXAMINATIONS | 1. | |
| ELECTRICIANS EXAMINATIONS | 250 Pages | 1. |
| WIRING DIAGRAMS | 210 Pages | 1. |
| ELECTRICAL DICTIONARY | 9000 Terms | 2. |
| ELECTRICAL POWER CALCULATIONS | 425 Pgs. | 2. |
| HANDY BOOK OF ELECTRICITY | 1340 Pages | 4. |
| RADIOGRAMS GUIDE | 914 Pages | 4. |
| ELECTRONIC DEVICES | 216 Pages | 2. |
| ELECTRIC LIBRARY | 12 vols., 7000 Pgs. | \$1.50 vol. |

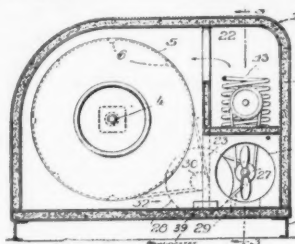
Name _____
Address _____
Occupation _____
Employed by _____

PATENTS

Week of April 1

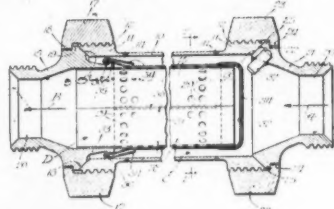
(Continued)

2,418,239. DRUM CLOTHES DRIER
INCLUDING MEANS FOR CIRCULAT-
ING THE DRYING GAS OVER THE
EVAPORATOR AND CONDENSER COILS
OF A REFRIGERATING DEVICE.
Thomas R. Smith, Newton, Iowa, assignor
to The Maytag Co., Newton, Iowa, a cor-
poration of Delaware. Application June
10, 1942, Serial No. 446,438. 1 Claim.
(Cl. 34-77.)



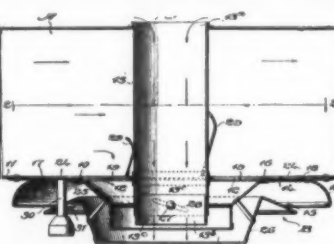
A compact and self-contained clothes
drying unit comprising an enclosure com-
pletely insulated from the outside atmo-
sphere, partitions in the enclosure for di-
viding it into separate compartments, a
perforated container rotatably mounted
within one of the compartments for re-
ceiving laundry to be dried, a refrigerat-
ing unit including a compressor, a con-
densing coil, an expansion valve and ex-
pansion coil, with the compressor, con-
densing coil and expansion coil disposed
in separate compartments, conduits con-
necting the compressor with the con-
densing coil, expansion valve and expansion
coil in sequence and back to the com-
pressor to provide a continuous circuit for
circulating refrigerant in the unit, an
opening in the partition between the con-
tainer compartment and expansion coil
compartment, an opening in the parti-
tion between the expansion coil comparti-
ment and condensing coil compartment,
and an opening in the partition
between the condensing coil compartment
and the container compartment, a circula-
ting fan and a motor within the enclosure
for operating the fan and compressor
disposed between the expansion coil and
the condensing coil for circulating air in
the unit in a closed cycle by drawing
moisture laden air from the container
compartment over the expansion coil and
thereby continuously cooling this moisture-
laden air and condensing out the moisture
content, blowing this cooled air over the
motor and condensing coil for heating the
air and passing this heated air to and
through the expansion coil in a continuous
closed cycle until the laundry has been
sufficiently dried.

2,418,247. TUBULAR DETACHABLE
FILTER. Charles B. Dalsell, Little Falls,
N. Y., assignor to Cherry-Burrell Corp.,
Chicago, Ill., a corporation of Delaware.
Application March 17, 1941, Serial No.
383,711. 9 Claims. (Cl. 210-164.)



1. A filter device of the character de-
scribed including a side wall forming a
portion of a filter chamber, spaced open-
ings in said chamber, an end wall for
said chamber having a flange defining one
of said openings, a filter material member
connected to said flange, and a perforate
sectional filter material member supporting
device partially telescoped into said flange
within said chamber so as to support said
filter material member supporting device,
said supporting device being comprised of
complementary curved sections in opposed
arrangements having abutting overlapping
flanges extending along the adjacent
edges of said sections to facilitate assem-
bly of said sections into a substantially
tubular element.

2,418,266. AIR MIXING AND DIFFUS-
ING OUTLET HAVING A CONCENTRIC
OPEN ENDED TUBE FOR MIXING
ROOM AIR WITH THE INCOMING
VENTILATING AIR STREAM. Franz J.



Kurth and Friedrich Honerkamp, New
York, N. Y., assignors to Anemostat Corp.
of America, New York, N. Y., a corpora-



Atlanta Jacksonville
Tampa Miami Charlotte
"The South's Largest
Refrigeration Supply Jobber"

tion of Delaware. Application Aug. 16,
1943, Serial No. 498,343. 10 Claims.
(Cl. 98-40.)

1. In combination, an air supply duct
having annular outlet means for dis-
charge of air therefrom into an enclosure,
and a tube disposed inwardly of and con-
centrically with respect to said outlet
means for conducting air from the enclo-
sure to a point in proximity to said out-

CLASSIFIED ADVERTISING

RATES for "Positions Wanted" \$2.50
per insertion. Limit 50 words.

RATES for all other classifications \$5.00
per insertion. Limit 50 words.

ADVERTISEMENTS set in usual classi-
fied style. Box addresses count as five
words, other addresses by actual word
count.

POSITIONS WANTED

BUSINESS CONNECTION—engineer de-
sires partnership or percentage arrange-
ment and organize expansion of estab-
lished small eastern contractor with con-
tacts (refrigeration, heating, electrical,
etc.) into refrigeration and air condition-
ing field. Excellent references. Contact
Stephen Diczok, RICHARDSON & RICH-
ARDSON, INC., 88 Park Avenue, Nutley,
N. J. Nutley 2-0265.

GRADUATE REFRIGERATION engineer
with eighteen years of executive experi-
ence in the design, development, testing,
and servicing of commercial and domestic
refrigeration equipment desires a posi-
tion with a manufacturer, distributor or
engineering firm in the Southwest or on
the West coast. BOX 2370, Air Condition-
ing & Refrigeration News.

SALESMAN—AGE 35. Position wanted as
representative for established manufac-
turer of refrigeration accessories. Wish
to contact manufacturers and/or jobbers
in the south or southwest. Successful
past sales record. At present employed
in the commercial engineering department
of large refrigeration manufacturer.
BOX 2374, Air Conditioning & Refrigeration
News.

DESIGN ENGINEER, 34, married, back-
ground covers design, sample building,
experimentation and production of small
commercial and domestic refrigerators.
Eight years experience. Specific abilities
include design and cabinet structure.
Capable and experienced in holding
supervisory positions. Can furnish excel-
lent references. BOX 2379, Air Condition-
ing & Refrigeration News.

REFRIGERATION SERVICE man thor-
oughly experienced on all SO₂, CH₃Cl, and
"Freon" systems commercial and domestic—
multiple and sub zero temperatures. Now
employed, wishes to change. Preferably
in the south east or south west. Have
car and tools. BOX 2380, Air Condition-
ing & Refrigeration News.

POSITIONS AVAILABLE

AGGRESSIVE MAN, good appearance and
personality, experienced as counter man,
for a wholesale refrigeration supplies
house. Reply by letter giving experience,
reference, previous employment, marital
status, age, approximate salary expected
and a recent picture or snap shot. Write
ACE REFRIGERATION SUPPLIES, Att:
Mr. J. Maguire, 46 NW. 36th St., Miami
37, Florida.

SERVICEMEN WANTED: Opening avail-
able immediately for two experienced com-
mercial and domestic refrigeration servicem-
en to service Frigidaire and other
makes. Dry climate and pleasant work-
ing conditions. Kindly give experience
and references in first letter. All replies
confidential. Address J. M. HARPER,
Service Manager, 3202 Pershing Drive,
El Paso, Texas.

WANTED—EXPERIENCED refrigeration
counterman. Good opportunity for ad-
vancement. Apply in own handwriting,
stating jobbing and any other experience,
education, and starting salary required.
Applications will be treated strictly con-
fidential. J. M. OBERG, INC., 904 W.
Baltimore, Detroit 2, Mich.

WANTED: EXPERIENCED service man-
ager familiar with heating, air condition-
ing and commercial refrigeration opera-
tion for permanent position with large
and well-established distributor. Must be
capable of handling and training men.
Good salary, fine future, excellent shop
facilities and equipment, good working
conditions. Reply, SIDLES CONDI-
TIONED AIR COMPANY, Omaha, Ne-
braska.

LARGE REFRIGERATION distributor
has excellent opportunity for salesman
with good commercial background. Salary
and commission \$10,000 to \$15,000 per year.
Fine engineering and service departments
to assist sales. Must own car and live
in Chicago. Write full details giving age,
experience, references, etc. BOX 2358,
Air Conditioning & Refrigeration News.

WANTED AT once—man for refrigeration
service also capable of doing electrical
repair and wiring. BOX 2377, Air Con-
ditioning & Refrigeration News.

WANTED: FACTORY representative to
establish dealers and distributors in the
State of Indiana for an old established
Eastern manufacturer of farm milk
coolers, farm freezers, and commercial
refrigeration products. Excellent poten-
tial earning possibilities. Reply to BOX
2383, Air Conditioning & Refrigeration
News.

WANTED: INSTRUCTORS to teach re-
frigeration, air conditioning, or sheet
metal work. College graduate preferred.
Apply in own handwriting, stating job-
bing, and other experience, education,
and starting salary required. J. CECIL
SHARP, Air Conditioning and Refrigera-
tion Department, Utah State Agricultural
College, Logan, Utah.

WANTED—SERVICE man to contact
distributors and supervise installation and
servicing of commercial refrigeration
equipment. Preferably living in Middle

let means for intermixture with and to
temper the air discharged from the duct
through said outlet means, the outlet end
of said tube facing in the same general
direction as the direction of discharge of
air from said duct through said outlet
means and being disposed in such
proximity to said outlet means that air
flowing through said outlet means from
said duct induces a flow of the enclosure
air through said tube, said tube including

a short length discharge end portion
longitudinally adjustable relative to the
other portion thereof to vary the position
of the discharge end of said tube
longitudinally relative to said outlet
means, said short-length portion of said
tube being spaced a constant distance in-
wardly from the outer side of said outlet
means.

(To Be Continued)

list price FOB Urbana, Ohio. 1-1 HP,
1-1/4 HP, 28-1/2 HP, 25-1/2 HP, also
15-1/4 HP with motors. REFRIGERA-
TION SERVICE CO., Urbana, Ohio.

SECTIONAL WALK-IN coolers, kiln
dried fir front, spruce interior. Chrome
hardware, metal saddle, finished shellac
4 in. Fiber \$1.20 for freezers 6 in. Fiber
\$1.40 per sq. ft. Cork insulation prices
on request. Limited number new refrig-
eration units coils, etc. available. Send
us your requirements. REFRIGERATION
SPECIALTIES, INC., 721 Flushing Ave.,
Brooklyn 6, N. Y.

FLOAT REPLACEMENTS. For replac-
ing defective high side floats on all
household units. Regular charging con-
nection, capillary tube setup, internal
strainer and exact mounting plate. Part
#2000-Westinghouse (4 hole plate), and
#2010 (3 hole plate): Part #2020-Gibson
Part #2030-General Electric (DR-1 &
DR-2). Part #2040-For general replace-
ment (undrilled plate). \$6.75 each
SEALED UNIT PARTS CO., 3097 Third
Ave., New York 56.

SEALED CROSLLEY TERMINALS. In-
stalled from the outside in a few minutes
without opening the compressor. Corrects
leaky terminals on all Crosley "F-12"
units. Set of three \$6.75 (Part No. 1020).
Installation tool \$1.65. Immediate delivery.
Money-back guarantee. SEALED UNIT
PARTS CO., 3097 Third Ave., New York
56, N. Y.

COMPRESSOR EXCHANGE—Unit re-
building. Over 300 compressors, immedi-
ate delivery (on receipt of your old com-
pressor) on 90% of the compressors in the
field. And—at half the price of a new
one. Prices on request. Also parts &
supplies. Wholesale only. SQUARE
DEAL SUPPLY CO., 904 N. Illinois,
Indianapolis, Indiana.

#2520 TRANE DX low temperature condi-
tioner complete with automatic controls,
2500 cfm, 1 1/2 HP, 220 V, 3-phase motor,
and 2 "Freon-12" coils, 24" x 36" x 10
rows. Surface of each coil approximately
700 sq. ft. Capacity and complete details
upon request. Delivers air alternately
from coils for automatic defrosting.
BOX 2375, Air Conditioning & Refrigera-
tion News.

3 HP COPELAND W.C. "Freon" units
with 3 ph. starters, less motors, new, in
factory crates—Price \$300.00. With 3 ph.
motors—Price \$375.00. BOX 2382, Air
Conditioning & Refrigeration News.

FRANCHISES AVAILABLE

LOW COST automatic fire extinguisher.
Exclusive county rights available for the
Marvel automatic Kill-Fyr extinguisher.
Component parts approved. Easy sales,
good profits. Write for descriptive circular
and facts from satisfied users.
KILL-FYR MANUFACTURING CO.,
Dept. R-88, Camden, N. J.

BUSINESS OPPORTUNITIES

HERMETICALLY SEALED refrigeration
unit. Very compact, efficient. Low wat-
tage. 1/12th-1/4th-1/2th HP units for
cabinets, water coolers, low temperature
boxes, beer wagons, farm use. Adaptable
various applications. Years running time.
Excellent patent protection. We will sell
units. Sell outright or royalty basis.
WILLIAM DRYDALE, 13038 East Jef-
ferson, Detroit, Michigan.

COMMERCIAL REFRIGERATION and
frozen food distributing business. Estab-
lished 8 years, 2 trucks, \$30,000 stock,
frozen food route doing \$2,000 weekly,
refrigeration sales gross \$150,000 annually.
5 year lease, Main Street, Large Long
Island village, exclusive territory, largest
manufacturers. Price \$40,000.00, terms.
POTTER & ROBINSONS, INC., Broker,
Patchogue, N. Y.

ILL HEALTH forces sale at inventory
of well established refrigeration and air
conditioning sales and service organiza-
tion. Many valuable franchises and
service agreements. Excellent location in
southern Colorado, low rent, good help,
first class shop and office equipment, late
model trucks. Real money making oppor-
tunity. BOX 2373, Air Conditioning &
Refrigeration News.

BARGAIN: FOR sale a well est. refrig-
eration business, in California's San
Joaquin Valley. Domestic and com-
mercial sales and service. Franchises for
well known products. Stock, tools, busi-
ness, all for \$5500. Lease can be secured.
Reason for sale—other interests. BOX
2376, Air Conditioning & Refrigeration
News.

COMMERCIAL REFRIGERATION growing
business which has doubled last year.
Location eastern Pennsylvania. Shop has
5000 sq. ft. floor space, 3 trucks, shop
complete with tools to repair and manu-
facture all types refrigerators. Terms
with right party. Reason for selling, poor
health. BOX 2378, Air Conditioning &
Refrigeration News.

EXPERIENCED MANUFACTURERS AGENTS WANTED

To handle territories over entire United States.
We have a complete line of Commercial Refrig-
eration. Our line includes Beverage Coolers,
Walk-Ins, Milk Coolers and Ice Cream Cabinets.
The line is at present advertised in several
magazines. (See ad page 27 this issue.) Our
representatives must be of highest calibre with
temperate habits. Previous refrigeration sales
experience is essential with a thorough knowledge
of refrigeration theory. Representatives now call-
ing on Refrigeration dealers, distributors, ice
cream manufacturers and creameries preferred
but must not have conflicting lines. No invest-
ment desired but send references in regard to
banking, character and experience in first letter.

W. Allen Rogers Industries
P. O. Box 272, Demopolis, Alabama

West. Reply BOX 2384, Air Conditioning
& Refrigeration News.

WANTED—FACTORY sales representative
to contact and work with distributors in
selling modern new packaged commercial
refrigeration for storage of frozen foods.
Reply BOX 2385, Air Conditioning &
Refrigeration News.

EQUIPMENT WANTED

MANUFACTURERS' SURPLUS equip-
ment bought up, cabinets, units, expan-
sion valves, controls, all refrigeration
products. Give full particulars. Prompt
attention given. R & R EQUIPMENT
CO., 2724 Third Ave., N.Y.C. 54, N. Y.

EQUIPMENT FOR SALE

MOTORS AND condensing units—avail-
able at once—1/4-1/2-3/4-1 HP Universal con-
densing units with or without motors.
Special—six hole ice-cream cabinets with
1/4 hp. Copeland units less motors \$225.
Also beverage coolers, beer equipment,
stainless steel reach-in freezers. ALBROD
CORP., 319 West 48th St., New York
City 19. CI 6-9100.

NEW 1/2 HORSEPOWER motors suitable
for commercial refrigeration work 110-
220 volt, 60 cycle, 1 phase AC current.
Price \$33.75 each, 25% deposit required
with order. Balance sight draft B/L or
COD. FOB Carrolltown, Pa. BENDER
ELECTRIC COMPANY, Carrolltown, Pa.
Phone 2401.

FRICK 40-50 ton condensing units:
with or without motors. Immediate de-
livery. Also 40-50 ton evaporative con-
densers. COLDSTREAM CONDITIO-
NING CORPORATION, 236 Albany Ave.,
Brooklyn, N. Y. PR 2-3295.

IMMEDIATE DELIVERY—new air condi-
tioning equipment. Weathermakers com-
plete with motor, "Freon" coil, etc.
2 ton to 25 ton. SWSI, DWDI, and twin
centrifugal blowers, propeller fans, heat-
ing and cooling coils, evaporative con-
densers, self-contained air conditioning
units, condensing units. CONTROLTEMP
CORP., 236 Butler St., Brooklyn 17, N. Y.

FOR SALE—AC motors 1/2 to 3 hp. single
and 3 phase, list price. Immediate de-
livery. EDISON COOLING CORP., 310 E.
149th St., Bronx 51, N. Y.

COPELAND CONDENSING units (all
w/motors but unmounted) in original
factory crates. Model C-325's (less con-
trol) \$69.00; 3 HP \$345.00; 7 1/2 HP \$695.00
both water-cooled. Prices FOB Los
Angeles. Terms: 10% with order, balance
sight draft. ELSTER'S, 115 S. L. A. St.,
Los Angeles 13, California.

QUALITY BOBTAIL fountains; reach-ins
walk-in boxes—wood, metal; dough re-
tarders; double duty cases—stainless steel,
porcelain; dairy florist, bakery cases;
ice cream hardening cabinets; thermo-
pane frozen food cases; milk, sandwich
coolers; stainless steel back bars; with
machines. Equipment made to special
order. FRIGITEMP CORP., 931 Bergen
St., Brooklyn 16, MA 2-9093.

NEW AMMONIA compressors 3 1/2 x 3 1/2
to 6 x 6 V.S.A. and 5 x 7 to 10 1/2 x 13
H.D.A. Immediately available at trade
prices. Associated heat exchange equip-
ment also available. GAY ENGINEERING
CO., 2730 E. 11th St., Los Angeles 23,
California.

HAVE FOR delivery 1/2 HP capacitor type
refrigeration motors, 110-220 volts, 60
cycle, AC Amps. 5.8, 2.9, Phase 1, temp.
rise 40 c. cont., capacitor starting induc-
tion run. Price: \$27.65. Quantity pur-
chases subject to a better price. Terms:
10% cash with order balance sight draft.
G. I. HAUKE & COMPANY, 3041-43
Locust Street, St. Louis 3, Mo.

NEW MOTORS, heavy duty repulsion
induction, single phase, 110-220 volts, 60
cycle, available immediately. 1/2 HP—
\$40.00, 3/4 HP—\$53.00, 1 HP—\$60.00, 1 1/2
HP—\$72.00. 25% deposit required with
order. Balance SDBL or COD. KOLD
DRAFT COLUMBUS, INC., 334 Marconi
Blvd., Columbus 15, Ohio. Main 1583 and
Main 3422.

1/2 HP CONDENSING units—air cooled
complete with motor and control. Avail-
able immediately. Price—\$140.00 less
motor and control—\$95.00. 25% deposit
required with order. Balance SDBL or
COD. FOB Columbus, Ohio. KOLD
DRAFT COLUMBUS, INC., 334 Marconi
Blvd., Columbus 15, Ohio. Main 1583 and
Main 3422.

WALK-IN COOLERS, sectional. Kiln-
dried fir throughout. 4 in. fibre glass,
natural finish, \$.95 per sq. ft. Beer coolers.
\$.85 per sq. ft. Cooler and freezer doors
as low as \$36.50. Wholesale only.
MIDWEST MFG. CO., 101 Glenwood,
Minneapolis 2, Minn.

1000 MOTORS, FOR sale, from stock
1/2 hp.—3425 RPM—3 ph/230 V. (Under-
rated—easily equal to 3/4 hp.) Ballbear-
ing, for vertical or horizontal. Enclosed
Fr. 1/2 in. shaft. \$36 each. This rugged
motor cannot burn out. (Glass insulated
wire coils.) MODERN SUPPLY CO., 204
Fulton St., New York 7—CO 7-0100.

DC MOTORS—New General Electric 1/4
HP. shunt wound, continuous duty, flat
base, high starting torque, totally en-
closed. 55 deg. C rise, 1725 RPM, 115 volt.
DC \$28.50 ea., lots of 25. REFRIGERA-
TION ENGINEERING CORP., 2024 Market
Street, Philadelphia 3, Pa.

FOR IMMEDIATE delivery we offer new,
nationally advertised, air-cooled con-
densing units, less motors, at 60% off factory

Cocktail Party, Supper 'Warms' Ted Glou's New Quarters

SYRACUSE, N. Y.—A cocktail party and buffet supper were major features celebrating the opening of the new offices and display rooms of

Central Service Supply Co., parts wholesaler here.

Formerly at 516 E. Erie Blvd., the firm is now located at 647 S. Warren

St. The new location gives Central Service Supply Co. 8,500 sq. ft. of floor space, according to Theodore I. Glou, who heads the company.

Located on a corner, the building has entrances on two streets, and features specially designed permanent display equipment.

Clayton Burlingame, Brunner representative, snapped the accompanying photo, which shows a portion of the display room and some of the special displays. In the picture are Bud Menard, Art Homeyer, Rita Glou, Ellen Comerford, Charles Grote, and John Eldridge.



Stowers, Inc. Formed

LOS ANGELES—Stowers, Inc. has been formed in Los Angeles County, with a capital of \$200,000, to deal in all kinds of gas and electrical appliances, equipment, and parts. Directors are: R. L. Stowers, R. A. Stowers, and Darrel G. Butler, Jr., all of Glendale, Calif.

Remodeled Home Supply Co. Of Spartanburg Re-opens

SPARTANBURG, S. C.—Now open for business is the remodeled store of the Home Supply Co. on Pitts St. here. The firm, owned by Hamp Boyd and B. C. Ferguson, will stock appliances, kitchen equipment, and home furnishings.

Cuneo Joins Johnston As Sales Manager

DETROIT—E. A. Cuneo has been named sales manager of the Johnston Refrigeration Sales Co. here, commercial refrigeration and air conditioning sales firm here.



E. A. Cuneo

Mr. Cuneo had formerly been with the Detroit office of the General Electric air conditioning department since 1939. Prior to that he had been connected with the L. J. Cuneo Co. in St. Louis.

Central Wholesalers Will Golf with Manufacturers

MELROSE PARK, Ill.—The Central Refrigeration Wholesalers Association has announced that its second annual wholesalers-manufacturers golf tournament will be held at the Acacia golf course on June 20, 1947.

Dinner at the Acacia club rooms will follow the day of golfing, according to Pat Ravanasi, association secretary. Fee for the entire day will be \$7.50, he said.

M-H Chicago Office Triples Space In Expansion Move

CHICAGO—The Chicago regional office of the Minneapolis-Honeywell Regulator Co. and its industrial division, the Brown Instrument Co., has moved to a new location which will provide three times as much space as former quarters.

The new office, at 351 East Ohio St., occupies the entire top floor of the building and provides 30,000 sq. ft. of floor space.

The Chicago regional office supervises activity and branch offices in various cities of Wisconsin, Illinois, Michigan, Indiana, Kentucky, Tennessee, Missouri, Arkansas, Kansas, and Iowa.

International Detrola Nets Million In Six Months Period

DETROIT—Net profit of International Detrola Corp. and subsidiaries was \$1,168,093.93, after tax provision, for the six months ended April 30, President C. Russell Feldmann has announced.

Sales for the first half of the company's fiscal year were \$36,130,351.31, he said, only slightly under the 1946 full year total of \$40,810,028.22.

AIR CONDITIONING
condensers and coolers **FAST**
designed and built

We design, build, reube or rebuild quickly for any unit with tubes, standard or special, for Freon, ammonia, CO₂ Materials on hand for prompt delivery. Emergency maintenance work 24 hours a day, anywhere.

Condenser Service & Engineering Co., Inc.
88 River Street, Hoboken, N. J.
Phone: Hoboken 3-4425, After 6 P. M. or Sunday, Hoboken 3-4475

**GET THIS
NEWEST SPRING
CATALOG NO. 143**

**Send for YOUR COPY
of the New Spring DEPENDABOOK
today! Use YOUR letterhead please.**

THE HARRY ALTER CO., INC.
1728 SO. MICHIGAN AVENUE CHICAGO 16, ILL. 134 LAFAYETTE STREET NEW YORK 13, N. Y.

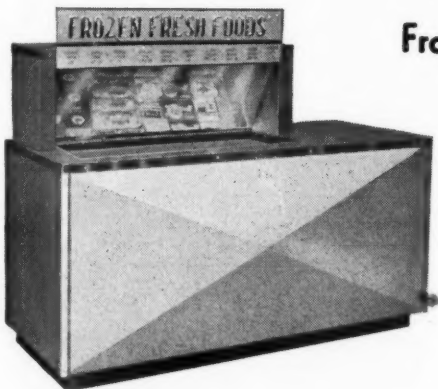
WANTED— MANAGER, NATIONAL ACCOUNTS

A large, nationally-known manufacturer of air conditioning and commercial refrigeration equipment, has an opening for a man to direct the department selling to national accounts and quantity buyers. Only men with experience and a record of accomplishment in selling to the top level of chain store executives will be considered.

Must be an excellent personal salesman and, in addition, be able to plan and execute the national account sales program through a large field sales force. Substantial salary and expenses with an unusual opportunity for advancement.

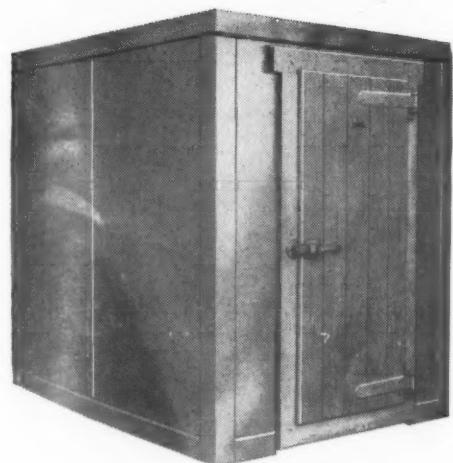
Please furnish complete and detailed record of experience and a photograph.
Reply Box 2381, Air Conditioning & Refrigeration News

ROGERS QUALITY LINE of Refrigeration



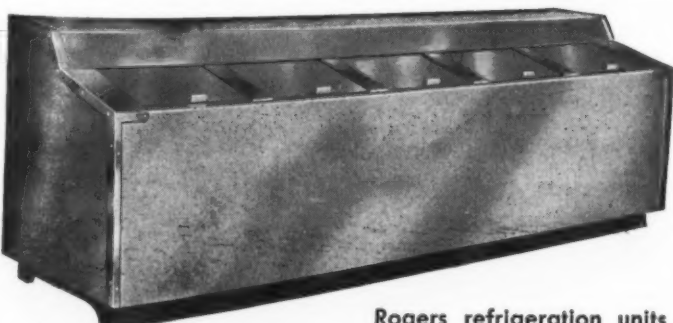
Frozen Foods Salesman

Shows them and sells them while maintaining proper temperature. Capacity 11.8 cu. ft. 5-in. Fiberglass insulation. Has heavy duty 1/4 H.P. compressor. Main box 15 6 ft. by 29 1/2 in., 39 in. high.



Walk-in Cooler

All metal clad, inside and out (photo shows wooden door but new model has door of metal). Shiny and attractive in appearance and easy to keep that way. Built for permanence. Precision construction permits rapid and easy assembling. Two sizes: 6 by 8 feet and 6 by 6 feet, both 7 1/2 high.



Dry Beverage Cooler

39 in. high, 30 in. wide, 6, 8, or 10 ft. long. Lids slide away or lift out. Removable dividers. 8-in. utility shelf.

Rogers refrigeration units are finished in Stainless Steel or polished Aluminum.

Immediate Delivery!

W. ALLEN ROGERS Industries
BOX 272-AC DEMOPOLIS, ALA.

DEALERS WANTED

Write, wire or phone today for information on franchise.



THERE'S AN EASIER WAY! Use THORS to help prevent sticking freezer doors. THORS is a clean, odorless, semi-solid product. It helps save doors, time and repairs. Treating an average freezer door with THORS costs about four dollars a year. So THORS probably will save you money, too.

COVER JAMB AND GASKET thoroughly with THORS the first time. Then forget it for weeks! That one application really lasts. All you do is brush off the light snow that forms around gasket leaks.

THORS IS ALSO RECOMMENDED for refrigerator truck doors—and for refrigeration plates and coils. One application of THORS lasts through several defrostings. And THORS cuts defrosting time by about two thirds!

THORS will not corrode black iron, alloy, steel and galvanized metal surfaces and will not affect most gasket materials.

THORS

YOU CAN'T LOSE!
For further information mail coupon or consult your supply dealer.



STANCO DISTRIBUTORS, INC.
216 W. 14th Street, New York 11, N. Y.

Stanco Distributors, Inc. Dept. A-C
216 West 14th Street, New York 11 N. Y.

Please send me without obligation free literature on THORS.

Name.....

Address.....

City..... State.....

Westinghouse Output Hits New Peacetime Record

PITTSBURGH—A new peacetime production record was set by the Westinghouse Electric Corp. during April, Gwilym A. Price, president, has announced.

Dollar value of goods produced rose \$8,000,000 over the March total to \$58,485,244, he said. This compares favorably with many wartime months, he added.

Greatest increases were noted in the appliance and transformer departments, though all divisions of the corporation reported gains, he declared.

Unfilled orders, expanding even faster than production, also reached a new peacetime peak of \$673,381,438, Mr. Price asserted.

Mr. Price expressed the opinion that the "unusually good business" now enjoyed by Westinghouse will continue for some months to come.

2 Westinghouse Plants Will Close for Vacation Period

MANSFIELD, Ohio—The Westinghouse Electric Appliance Division plant here and at East Springfield, Mass., will be closed the last two weeks in July (July 21 to Aug. 1, inclusive) for the regular summer vacation period, it was announced by J. H. Ashbaugh, vice president.

The vacation period covers all production, advertising, and sales employees.

Net Income, Sales Drop in '46 Anemostat Corp. Declares

NEW YORK CITY—Both net income and net sales dropped during 1946 according to a yearly report issued recently by the Anemostat Corp. of America. The firm had a net income of \$23,008 for the year as compared with \$30,175 in 1945. Net sales for 1946 were \$2,230,336, which contrasts with \$2,526,775 the year previous.

EQUIPMENT FOR SALE

Air conditioning units consisting of 1/2 hp Bishop-Babcock Compressor Body made for B & B by Servel Refrigerator Co.

1 16" X 24" Kramer Double row condenser.

1 3 1/2" X 14" heavy duty receiver with safety plug and test cock with approximately 5 lbs. of "Freon."

1 Detroit Lubricator 2 ton Expansion valve.

1 Peerless Thermac evaporator blower unit cooler 12" X 24" X 6".

10 ft. each of 3/8" and 1/2" tubing with vibrator eliminator attached.

Compressor body base attachable to automobile motors.

Also 60 other items including bolts, nuts, bases, and brackets.

These units were built for Chrysler Corp. to condition their Chrysler cars.

All the above equipment is new. Cost approximately \$300.00. Our prices \$70.00 F.O.B.

These units are knocked down in shipping crates weighing approximately 200 lbs.

GEORGE SPECTOR

CA 5125

675 Gratiot Ave., Detroit, Michigan

Cornelius Co. Creditors' Meeting Adjourned Again

MINNEAPOLIS—Further adjournment of the initial meeting of creditors of the Cornelius Co., bar equipment manufacturer here, until July 24 has been announced by George A. Heisey, referee in bankruptcy.

Adjournment was approved and recommended by the creditors' committee. Representatives of the Cornelius Co. had requested that the committee postpone the meeting pending conclusion of negotiations with officials of the U. S. treasury and justice departments.

The initial meeting of creditors was started on Feb. 14, 1947 and successively adjourned to April 18, June 10, and now July 24.

McNeal Elected --

(Concluded from Page 1, Column 3)

Servel, Inc., first vice president; Ross Rathbun, Baker Ice Machine Co., second vice president; P. A. McKittrick, Parks-Cramer Co., Fitchburg, Mass., treasurer.

Four new members were taken into the association, Frigidaire Division of General Motors Corp.; Acme Industries, Inc.; Fedders-Quigan Corp., Buffalo; and Schnacke, Inc., Evansville, Ind. Total membership is now the largest in history and includes 30 companies manufacturing equipment for food preservation, processing, and human comfort.

"Everyone of the members of our association expects amazing progress in the months immediately ahead," Mr. McNeal said.

Baker Sets Up Factory, Headquarters In Maine

SOUTH WINDHAM, Me.—Establishment of general headquarters here and a factory to produce small condensing units has been announced by Ross Rathbun, president of Baker Ice Machine Co.

Executive, sales, and engineering staffs of the company are now concentrated at the new factory where compressors and condensing units from 1 1/2 to 15 hp. for "Freon" and ammonia will be produced. The manufacture of larger compressors and condensing units will continue at the Omaha, Neb., plant.

Renewal parts will be supplied out of the Omaha factory, advises Mr. Rathbun.

Freezer Shipments --

(Concluded from Page 1, Column 2)

of the industry. Reports were received by the bureau from some 150 companies, but only 100 were active in the fourth quarter, the bureau said.

Small freezers predominated the fourth quarter shipments, 42% being 6 cu. ft. or less. Of the 41,381 in this category, 21,724 freezers (22% of the total) were between 4.1 and 6 cu. ft. in size.

Nearly all the freezers shipped in 1946 were self-contained units. Of the 210,248 total for the year, 204,020 were self-contained, and 6,228 were designed for remote installations.

Purchases of components for the year were valued at \$9,264,134. This included 142,471 condensing units, 18,940 compressors, 507 forced air evaporators, and 1,375 enclosures.

C-W UNIT COOLER—Wall- or ceiling-mounted

Jr. WALL-MOUNTED PANEL COOLER—compact... high capacity

STANDARD ICE-MAKING COILS—12 to 48-pound ratings



BUSH

HEAT TRANSFER PRODUCTS

BUSH MANUFACTURING COMPANY

HARTFORD, CONN.

415 LEXINGTON AVE., NEW YORK

549 W. WASHINGTON BOULEVARD, CHICAGO, ILLINOIS

EXPORT ADDRESS: 13 EAST 40th STREET, NEW YORK, N. Y.

CABLE "ARLAB"

HEAT TRANSFER EQUIPMENT

MARLO
COIL COMPANY
SAINT LOUIS, MISSOURI



For COMPETENT
PHOTOGRAPHIC
SERVICE in the U. S.

and Canada, deal with professional photographic studios which display this emblem.

Get new 1947 Classified Directory free. Lists competent photographers geographically and by name, with key to special services. A big help when you need photographs from out-of-town. A request on your letterhead will bring this 268 page booklet.

Write to Charles Abel, Executive Manager, THE PHOTOGRAPHERS ASS'N OF AMERICA, 520 Caxton Building, Cleveland 15, Ohio

"BUSH" MEANS MORE BUSINESS . . . MORE PROFIT. The Bush name on equipment you sell is certain to result in more business from each customer . . . and from friends of those customers.

That's because owners of Bush equipment soon discover that these products require less servicing . . . that they are high on performance, low on operating cost.

To you, in addition to bringing new business, the Bush trademark also means that costly service calls won't eat up your profits. And that's worth thinking about when specifying equipment that you'll have to live with.